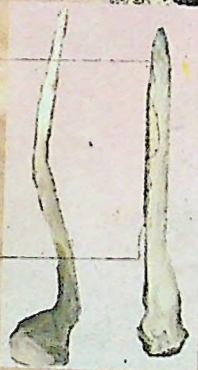
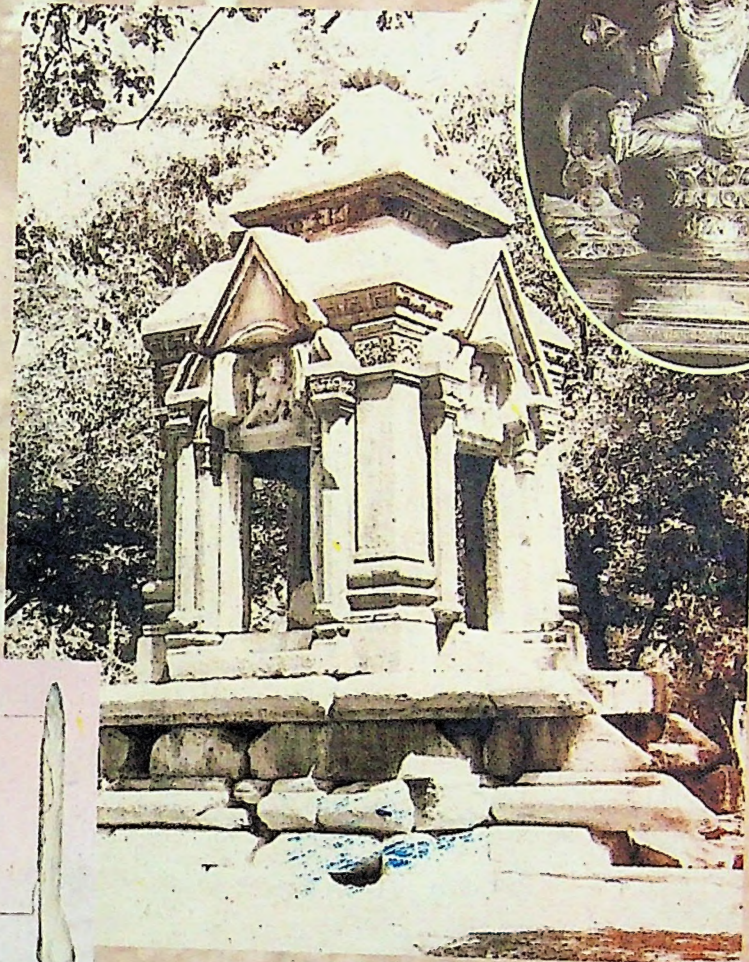


Settlement Pattern in Relation to Climatic changes in **Kashmir**



S. L. SHALI

The Valley of Kashmir, though protected by formidable ranges of snow clad mountains on all its sides did not remain isolated from other great cultural entities of the sub-continent. In culture, in learning in art and architecture, in the maintenance of brotherhood and religious toleration, the people of this beautiful valley have shown their remarkable unity, ability, power and strength. Throughout its history and pre-history, the valley has witnessed an increasingly rich and varied culture, which primarily depended on climatic and environmental changes.

The early man could not find a congenial place to live in the valley because of repeated uprising of Pir Panjal and severe glacial activities. The early man could roam in the valley when there were favourable climatic conditions. He was always fearful about the uncertainty of drastic climatic changes as such took up temporary settlements in the forests, plain valleys in the higher reaches of the Pir Panjal and the Himalayan ranges and other such grassy lands on the elevated areas.

The environmental and climatic changes documented through multi-disciplinary channel have thus affected the expansion or eclipse of human settlements. The results of this research work of geographical literary and archaeological records present a relevant source material for a better understanding of men's evolution through the ages. This study involved wide range of socio-economic problems which were to be studied in their proper perspective while dealing with the settlement patterns in relation to climatic changes in the valley. And moreover the current events of pervasive degeneration of environment could then again be set right on a swifter pace with the book entitle "*Settlement Pattern in relation to Climatic Changes in Kashmir from 20000 BP to 1000 BP*"

Utpal

*Settlement Pattern in Relation
to Climatic Changes
in Kashmir*

Department of Health and Education
to Change Changes
in Kachmar

Settlement Pattern in Relation to Climatic Changes in *Kashmir*

G.M. College of Education
Raipur, Bantalab
Jammu.

Acc. No. 5649 39 (III)
Dated 19.5.03

S.L. SHALI

G.M.C.E.J



5649



OM PUBLICATIONS
NEW DELHI

The publication of this book has been financially supported by Indian Council of Historical Research. The responsibility for the facts stated or opinions expressed is entirely of the author and not of the Council.

Published by
OM PUBLICATIONS

2783, Bhagat Singh, Gali No. 6
1st Floor, Chuna Mandi
Pahar Ganj, New Delhi - 110055
Tel : 3535574
e.mail ibp@ndf.vsnl.net.in

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Om Publications

ISBN 81-86867- 52-X

by
S. L. Shali

Laser Typeset by
Tej Composers WZ-391 Madipur Village, New Delhi-110 063

Printed in India by
B.K. Offset, Delhi

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Foreword

The settlement patterns in ancient Kashmir have often been influenced by climatic variations. It has the distinction of having a rich legacy of historical, literary and devotional texts and traditions. The cycle of glaciation with intermittent interglacial periods were experienced in the valley without, of course, taking into account the climatic changes that had taken place through the ages. In particular, human activity was governed by the vagaries of weather and climate. Incessant rains, snow, droughts, flood, land-slides, heat and cold waves have often disrupted the man's occupation in the past as well as his movements, his clothes, his houses, his food, his living style and also vegetation growth and animal kingdom.

The study of palynology, paleobotony, paleoclimatology of Karewas based on physical and other scientific techniques revealed that the valley witnessed hypothermal of warm optimum periods at 20,000 BP, 5000 BP, 18000 BP and 1000 BP corresponding to upper Paleolithic, Neolithic, Kushana and Mediaeval settlements.

Despite heavy odds, the man maintained ecological balance right from ancient times. The society as such comprising of kings, high ups, laymen, saints and philosophers, emphasised the need for safety of life, sustaining five elements (Panchatativa) represented by earth (Nutrients), water, fire (energy), sky (space) and air (gases). Accordingly settlements, religious or stately es-

tablishments, sprung up under pollutionless environmental situation like high plateaus, forests, lakes and rivers. After 1000 BP, there were harmful changes in the environmental set up and as such it led to abnormal rise in population, expansion of settlements at the cost of forest, reduction in flora and fauna and thus endangering the life on earth. The vivid example of environmental degradation is visible in the shrunken Dal Lake which represents the remnants of once vast lake - SATISAR.

Till date, no authentic study on settlement pattern was available. This research book in the field can help us in understanding the essence of pollutionless eco-environmental settlement patterns not only of ancient to very ancient past but even of the periods thereafter. Only then drastic changes in human occupation, modes of living and habits could take place for the welfare of the society as a whole.

Late Shri S. L. Shali's book "Settlement Pattern in Relation to Climatic Changes in Kashmir from 20000 BP to 1000 BP" has yielded useful information about the environment in which early man lived, his dwelling places, hearths, tools and plants, his animal contemporaries, economy, burial customs, likes and dislikes and subsistence patterns. It is a matter of great satisfaction that with this spadework, a harmonious relationship and adjustment would come into being between man, forces of nature, plants and animals around him.

ANANTH KUMAR

Minister of Tourism and Culture
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New Delhi - 110001

Preface

The valley of Kashmir always occupied a key position in the dissemination of its culture to Central Asia, Tibet, China and beyond, despite its geographical position. Earlier it was believed that the ancient culture of Kashmir was restricted to its rich literary or traditional records and the widespread Brahmanical or sparsely Buddhist monumental remains, in the post-independent era, the spade has unearthed many unknown past settlements which have steadily been of increasing sizes and magnificence. Their exposures have brought about a sea-change in the conception of the people regarding the ancient history of settlements in Kashmir.

The excavations of the Neolithic settlements of Burzahom in Srinagar district and Gufkral in Pulwama district have brought to light series of settlements (c. 5000 B.P.) represented by pits, pit chambers, storage pits, burial customs and other cultural material which are so fascinating and unique that these have no parallels with other Neolithic cultures of India, but carry similarities with such cultures beyond the frontiers of sub-continent. Identical cultural traits have come from the explored sites spread out throughout the length and breadth of the valley. Again the excavations at Semthan near Bijbehara in Anantnag district have provided a chronological sequence of post-neolithic economy.

Consequent upon these encouraging and tangible archaeological data, considerable interest was taken by the

scholars to extend the line of research in ascertaining the settlement changes right from barbarian societies upto the period when the valley experienced a society more complex and enormously rich covering a wider geographical scope till there was a remarkable outburst of intellectual activity, efflorescence of culture and suzerainty over vast areas (1200 B.P.).

The study of early literature and of the archaeological record revealed that there had been continued movements of the people in the valley and outside even earlier than neolithic period. In a mountainous region like Kashmir where there was limited and difficult means of communication, such movements could have been possible in pre-Neolithic periods as well but only under favourable climatic conditions.

The explored and excavated settlements lie over the top of alluvial plateaus commonly called Karewas, a modern name of Persian origin. Its Sanskrit form is Uḍḍara and Uḍar in local Kashmiri language. These Karewas are the infillings of the intermontane Kashmir basin and are divided into two formations, lower and upper. These preserve the climatic sequence of the valley and had attracted geologists, palaeologists, geochronologists and others in the past but no detailed sedimentological studies were attempted. Nor was also much known about the fauna, flora, palaeoenvironmental or palaeoclimatic trends of the region. It is on these factors that the appearance, expansion and disappearance of the settlements depend.

The importance and technological significance of Karewa sediments, the climatic and environmental changes against the backdrop of archaeological or literary records was often discussed by the experts. However, a serious study was taken up under a multidisciplinary project (Kashmir Palaeoclimatic Project, 1980-1990) initiated by Prof. D.P. Agrawal. In it scholars, geologists, ar-

chaeologists and scientists from Delhi, Garhwal, Gujarat, Kashmir, Lucknow and Punjab Universities, besides those from Birbal Sahni Institute of Palaeobotany, Geological Survey of India, Archaeological Survey of India (Srinagar Circle), Physical Research Laboratory, Deccan College, Post-Graduate Research Institute and Bhabha Atomic Research Centre, Nuclear Research Laboratory (Srinagar) participated. A detailed Palaeoclimatic and Palaeoenvironmental changes that had occurred during the last 4 million years were produced through varieties of physical dating methods.

The topmost part of the Karewa deposit is recognised as a windborne loess deposit and represents cold, arid conditions. Along with it, palaeosols were found associated within the loess sections which are indicative of warmer period. Extensive studies on loess and palaeosols have revealed their value as continental palaeoclimatic indicators.

A broad profile of climatic changes has thus been made available and it has been ascertained that in Kashmir human settlements thrived only during optimum climatic conditions.

I took active part in all these operations on behalf of the Kashmir University and shared with the collaborators their observations in the field for which I thank them all. In particular I thank team Director, Prof. D.P. Agrawal for providing me all the field facilities and for supply of documents if and when asked for. Similar co-operation was received by me from Doctors G.M. Buth, Sheela Kusumgar, R.V. Krishnamurthy, C. Sharma, Navin Juyal, A.B. Vora, Ashok Sahni, B.S. Kotlia, S. Lodha, Rekha Dodia, R.K. Pant, G.S. Gaur, A.K. Sharma who also deserve my sincere thanks.

I am greatly beholden to Shri M.C. Joshi, Ex-Director General of Archaeology in India who wrote to the then Superintending Archaeologist, Archaeological Survey of

India, Srinagar Circle to provide me photography, drawings and library assistance for the completion of the project. The Deputy Superintending Archaeological Engineer of the circle now retired, Shri S.B. Kaul provided me all the library assistance for which I offer my gratitude to him. Equally I am thankful to Shri S.S. Saar, Ex-Assistant Superintending Archaeological Engineer, Archaeological Survey of India, New Delhi for providing me his drawings and documentary evidences while writing the project report on Neolithic settlements.

The Archaeological Survey of India and the National Museum, New Delhi were generous enough to supply me the photographs for which I am grateful to these institutions.

My thanks are due to Mr. M.H. Makhdoomi, Deputy Director, Archaeology and Museum, J & K Government, Jammu; his Surveyor, Mr. Roshan Lal Safaya; Mr. M.S. Zahid, Registering Officer, J & K Government for their lively and profitable discussion on various aspects of the report. Similar help was received from Mr. A.A. Bandey, Lecturer-cum-Curator, Central Asian Museum, Kashmir University, Srinagar who also deserves my thanks.

I am indebted to Prof. Y.B. Singh of Post-Graduate Department of History, University of Jammu who as my supervisor always gave me valuable suggestions and guidance.

In conclusion, I express my gratitude to my grand daughter, Shanu who as in the past provided some line drawings for incorporation in the project report.

Jammu
October, 1998.

S.L. SHALI

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List of Abbreviations

AP	Ancient Pakistan
AR	Annual Report
ARM	Archaeology, Research and Museum
ASI	Archaeological Survey of India
BARC	Bhabha Atomic Research Centre
BP	Before Present
BVB	Bhartiya Vidya Bhawan
GSI	Geological Survey of India
IA	Indian Antiquity
ICCR	Indian Council for Cultural Research
ICHR	Indian Council of Historical Research
IEPCCK	Isotope Evidence for Pletatocene Climatic Changes in Kashmir
IIAS	Indian Institute of Advanced Studies
JASB	Journal of the Asiatic Society of Bengal, Calcutta
JBBRAS	Journal of the Bombay Branch of the Royal Asiatic Society. Bombay

JKAACL	Jammu Kashmir Academy of Art, Culture and Languages
JNSI	Journal of the Numismatic Society of India
JPSI	Journal of the Palaeoclimatic Society of India
JRAS	Journal of the Royal Asiatic Society of Great Britain and Ireland, London
JRASB	Journal of the Royal Asiatic Society of Bengal, Calcutta.
JRSEA	Journal of the Royal Society for the Encouragement of Arts.
KPCP	Kashmir Palaeoclimatic Project
KU	Kashmir University
KSTS	Kashmir Series of Texts and Studies
KYr	Kilo (1000) Years
ME	Man and Environment
MS	Manuscripts
NP	Nilamata Purana
PASB	Proceedings of the Asiatic Society of Bengal
PRL	Physical Research Laboratory
Report	Detailed Report of a tour in search of Sanskrit manuscripts made in Kashmir, Rajputana and Central Asia.
R&P	Research and Publication
RT	Rajatarangini of Kalhana
SEM	Scanning Electron Microscope
SPS	Sri Pratap Singh

Introduction

Kashmir owes its pre-eminence to its strategic position. It is above all an intensely interesting country, remote, enclosed by heavily wooded mountains and very beautiful with a long story providing the scene of many of the vital movements of history.

The valley of Kashmir despite strongly protected by formidable ranges of snow-clad mountains on all its sides did not remain isolated from other great cultural entities of the sub-continent. At times, its isolation has paid rich dividends. In culture, in learning, in art and architecture, in the maintenance of brotherhood and religious toleration, the people of this beautiful valley have shown their remarkable unity, ability, power and strength. It created a distinct character of its culture but at intervals due to close contacts with people outside the valley, a very appreciative cultural unification is noticed. Throughout its history and pre-history, the valley has witnessed an increasingly rich and varied culture which primarily depended on climatic and environmental changes. It did offer the people, locals or immigrants, a more secured and well sheltered territory but on various occasions because of adverse climatic conditions or rigours of winter, they had to leave for warmer places outside the valley¹. Recent researches in geology, geography, archaeology and in bio-sciences have provided fresh evidence on prehistoric period or subsequent stages of cultural development.²

The valley of Kashmir is peculiarly suited for study of settlement patterns. The patterns changed with the change in environment and climate. Even with the aid of comparatively plentiful and well-established archaeological data, the changes in settlement patterns lagged behind for want of data on past climatic and environmental changes. In recent years, a decade-long interdisciplinary study of past climatic trends in the valley has provided a valuable data in a firm time-frame based on physical methods of dating.³ With the proper documentation of evidences in relation to climatic and environmental changes in the valley against the archaeological records, the changes in the human settlements through the ages could now be recognised on sound basis.

In a cooler region like Kashmir, the climate makes much greater demands on human energy. The existence of a very great number of villages, deserted village sites, hilly grasslands, a number of temple ruins point out that the population of the valley was far greater than at present. The man of this land had a powerful impetus to control environment under altering circumstances.

Kashmir is perhaps the only State of the sub-continent which boasts of its written records dealing with her origin, ancient inhabitants, their socio-religious and economical life. The oldest surviving Sanskrit literary works of Kashmir, *Nilamata Purana* (6th-7th century)⁴ and *Rajatarangini* (the river of kings, being the only historical work in ancient Indian literature, mid-12th century)⁵, refer that the valley was originally a vast lake called *Satisaras* (the lake of Sati, the consort of Shiva) and in detail mention about its desiccation, the original settlers and their lives. Hiuen Tsang who visited Kashmir in 631 A.D. relates the legend in the Buddhist form⁶. With slight modification, this very legend was reproduced by later indigenous Persian and Sanskrit chroniclers and western scholars. These written

records, traditions and legends now stand supported by geologists and scientists. The Wular and Dal lakes are possibly the remains of that very primaeval lake.

The infillings in the intermontane Kashmir basin preserve a sequence of climatic events in the form of Karewa sediments. These carry an estimated thickness of 1,000m and above and have been identified as glacio-fluvio lacustrine deposits, capped by loess mantle with intermittent layers of a palaeosols. Loess is a silt-sized sediment, a wind-borne deposit of periglacial environment and represents cold, arid conditions. On the other hand, the palaeosols or buried soils in the loess indicate warmer and wetter periods.⁷ Extensive studies on the Karewa deposits classified in two groups (the Lower Karewas and Upper Karewas) reveal major changes of floral, faunal assemblages frequently inferred to result from the uplift of Pir Panjal and glacial-interglacial climatic variations. These changes are of vital importance in demarcating settlement patterns in relation to archaeological records.

The early man could not find a congenial place to live in the valley because of repeated uprising of Pir Panjal and severe glacial activities. The lacustrine sedimentation in the primaeval lake began around 4 MYr and the chronological frame-work now worked out has shown the appearance of megavertebrates like *Elephas hysudricus* (elephant), *Equus Silvalensis* (horse) and rich variety of *Cervus* (deer), (younger than 2.4 MYr). At Wapzan, near the Avantipur canal headworks, 68 km from Srinagar, elephant remains suggest that the elephant was living in a cold and arid climate probably a glacial period⁸. Similarly arboreal taxa like *Pinus wallichiana* (Blue pine) from Wapzan shows a glacial and arid type of climate at this stage.⁹ The top levels marked by broad leaved elements indicate a warm temperate climatic conditions in about 20,000¹⁰ B.P. The climatic amelioration is also marked by

the dominance of thermophilous plants over conifers. The archaeological records also coincide with the tools of the upper palaeolithic man which appear to be associated with the 2nd palaeosol datable to 20,000-18,000 B.P. The early man could roam in the valley when there were favourable climatic conditions. He was always fearful about the uncertainty of drastic climatic changes and as such took up temporary settlements in the forests, plain valleys in the higher reaches of the Pir Panjal and the Himalayan ranges commonly called *Margs* and other such grassy lands on the elevated areas. He had to take shelter in these regions because of availability of water, fodder for his animals and raw material for his tools. The tangible evidence left behind by that prehistoric man of this period are the stone tools which have been found in various segments of the valley by earlier explorers, archaeologists and recently by the experts of KPCP (1980-90).

It seems that relatively wetter-warmer conditions continued up to 15,000 B.P. after which the colder conditions in the valley took a horrible turn. This is confirmed by the dominance of conifers and also by the pollen profile at Toshmaidan in Kashmir.¹¹ There was heavy snowfall which might have continued for a longer time. This not only wiped off early man's settlements but restricted his movements because of open fissures, crevasses, volcanoes, cloud bursts and erosion. This also explains the absence of settlements associated with Mesolithic period in the valley. Even at about 10,000 B.P., the pollen profiles from the bogs show a dominance of conifers indicating cold climate¹².

The broad leaved elements again dominated the valley by 5,000 B.P. when it witnessed a period of climatic amelioration. Associated with the mid-Holocene levels, there took place a stage of hypstermal warming, a marked improvement from the cooler oscillation of the early

Holocene. This period is represented by the domestication of plants and animals. Archaeologically this period is represented by wide-range of Neolithic settlements. A well-documented and established sequence of the settlements is known from extensive excavations carried out at Burzahom, 24 km northeast of Srinagar, and at Gufkral, 41 km southeast of Srinagar in Tral tehsil, district Pulwama and from minor probings at some of the explored sites. Their settlements were pits dug out in the loessic deposit itself. These were subsequently replaced by mud walls, mud-platforms and timber structures. Improved methods of farming resulted in the growth of population. They lived by hunting, fishing and fowling. The cultural material of the settlers is marked by use of well manufactured and designed pottery, sophisticated and polished varieties of tools in stone and bones. The practice of burying dead or the pet animals within the settlements co-existed. There are sufficient archaeological evidences to show that the Neolithic settlers had commercial and cultural links with the people of other regions beyond the frontiers of the valley.

In post-Neolithic era also, there was no drastic climatic fluctuation. Iron rods, points or awls were obtained from strata ascribed to 3200-3000 B.P. This was the period when megaliths were raised. The settlements were reinforced by small unknown stone boulders. Trade links co-existed as before. A distinct type of ceramic evidence has come from the lowermost level of Semthan, a habitational site about 44 km from Srinagar on Srinagar-Jammu national highway, some types of which resemble post-Harappan pottery of Banawali-Bara and in the plains of Punjab and Haryana.¹³ Already pre-Harappan and Harappan traits have been found in the Neolithic settlements of Burzahom and Gufkral. They may represent a period of little occupation or abandonment but the importance of their cultural

contacts could not be ignored. During Neolithic period, the people of Kashmir were conversant with the cultivation of wheat and barley. The grains of rice were found in the closing phase of Gufkral 3200-3000 B.P. Semthan yielded both hulled and naked types of rice right from the earliest level of its occupation. The abundance of water and fertile soil was best suited for the cultivation of rice. The archaeo-botanical investigation showed that the cultivation of rice was introduced by the people of plains in the closing century of second millennium or beginning of early centuries of the first millennium before Christ but definitely before the introduction of NBP.¹⁴ The discovery of NBP and other related finds now confirms that the Kashmir was included in the Mauryan empire. Consequently the cultural change gave a new boost for better type of settlements which was further augmented by the arrival of Indo-Greeks. Speaking about the high standard of settlements in the valley during the reign of Ashoka, the celebrated author of *Rajatarangini* mentions that his magnificent capital (identified as the present area of Pandrethan) near Srinagar was the most important on account of its 60 lacs of dwelling houses resplendent with wealth.¹⁵

After the decline of Mauryan empire in north-west of India, the prosperity, the settlements of the valley had achieved during the dominating influence of Ashoka, came to a halt. Kashmir did not remain immune from the foreign invasions of Indo-Greeks, Indo-Scythians and Shakas who rocked north-west India. Kalhana introduces them as *Mlecchas* (impious) who had occupied the land but were driven away by Ashoka's son, Jaluka.¹⁶ In the valley, their coins have been found in large numbers. The presence of Indo-Greeks has been recognized in excavations at Semthan also. The abundance of their coins found in Kashmir indicates the continuance of regular commercial

contacts with the principal cities of Kabul, Punjab and Gandhara. The best and the pious ruler of Indo-Greeks, Menander, who occupied Kashmir after Demetrious, had a religious dialogue with a learned Buddhist monk Nagasena somewhere in or near Kashmir, after which he became a convert to Buddhism. A *vihara* built by him was named after him as *Milindavihara*¹⁷. Their tenacity and talent in producing objects of art in terracotta or stone was profitably utilised by the locals. The short-lived settlements of these tribes had a powerful, profound and a lasting effect on Kushanas who occupied the valley after them.

Palaeoclimatic investigation has revealed that by 1800 B.P. the valley had again a warm climate and this period is marked by a large number of Kushana sites. New settlements sprang up. The principal ones were at *Shakta Matha* (Huthmura) Anantnag, *Huvishkapura* (Uskur), *Kanishkapura* (Kaneshpur), Baramulla, *Shadarhadvana* (Harwan) and *Juskapura* (Zukur), Srinagar. Buddhism witnessed a golden age under Kushanas and in fact it reached its highest point of development under Kanishka who is credited with the convocation of a council in Kashmir on the model of that summoned earlier by Ashoka. Kashmir became a great centre of Buddhist learning. It made great strides and was fostered by wide-ranging missionary activity. The settlements that emerged during Kanishka's or his successor's times were self-sufficient. These emerged with specialisation in various crafts and extensive trade and cultural relations. The population was substantially larger than those settlements of earlier periods. These projected clear differences in the standard of living of various sections of the society. The land of Kashmir became the centre of intellectual activities. Many scholars well versed in Buddhist learning took a leading role in the transmission of knowledge to other countries. The students and scholars from foreign countries

also visited the valley for learning and for acquisition of Buddhist texts. They were provided with hospices for their stay in the valley.

There was abnormal increase in the varieties of fauna and flora. The stable weather enabled the smooth flow of commercial or cultural relations in the valley and from here to outside regions. The horses and elephants began to roam once again whose motifs are vividly shown along with the floral wealth on the terracotta tiles excavated from Harwan or some other sites.

The well-established Buddhist order, settlements with improved subsistence patterns and the peaceful atmosphere were greatly disturbed by the barbarian Huna chief, Mihirakula who came into the valley in 541 A.D. with fire, sword and massacre. He died in Kashmir in the following year but he left his impact on the political scene of Kashmir. The speed of development began to show process of decline.

The events which led to his death after a short stay could be due to adverse weather conditions and not by committing suicide as referred by Kalhana.¹⁸ The weather of Kashmir oscillates between two extremes of temperature and the changes are frequent and sudden. More or less in the middle or the closing years of 6th century in the reign of King Tunjina, fertility of the land, rate of production and lines of communications within the country and outside received severe blow due to strong winds, decreasing precipitation, untimely and prolonged snowfall. The havoc took place in the month of Bhadrapada (July-August) more than three months earlier than the scheduled month of snowfall. It destroyed the standing crops, the routes over the mountains were closed by impassable snow-drifts and everything came to a standstill. Then another calamity of a famine took place which tormented the human beings by hunger as a

consequence of which they forgot modesty, pride and high birth. The people, under compulsion, lived on dead pigeons which had fallen from the roofs of the houses because of severe snow storms¹⁹. On an earlier occasion also, the Buddhists had to leave the country due to heavy snowfall.²⁰ This is a solid proof of change of settlements due to environmental and climatic changes.

Again the period between 1500 to 1000 B.P. saw well-developed and food producing settlements including possible movements of the people due to climatic amelioration. The pollen diagrams and magnetic susceptibility show a warmer and more humid climate in tune with the global mediaeval warming. The extensive range of the monumental or sculptural wealth largely belongs to this period. This is an inference that human settlements increased with corresponding increase in population having manifold subsistence resources.

This period of about five centuries in particular experienced an era of prosperity, abundant production of agricultural products, promotion of trade and commerce, expansion of territorial limits, birth of kingship and bureaucratic traditions, brilliant exposure of scholarly genius, adequate presentation of perfection in the fields of philosophy, religion, science, art and literature. Kashmir in this period made strenuous efforts for cultural expansion and colonization. Thus the inter-State contacts were highlighted.

The environmental and climatic changes documented through multidisciplinary channels have thus affected the expansion or eclipse of human settlements. The results projected here, within the framework of geographical, literary and archaeological records, present a relevant source material for a better understanding of man's evolution through the ages. The study involved wide range of socio-economic problems which were to be

studied in their proper perspective while dealing with settlement patterns in relation to climatic changes in the valley.

Background, Aims and Objectives

The glorious traditions of literary and legendary records were found to be inspiring sources for geological, climatical and cultural changes. These changes had catastrophic consequences for the human settlements. However, these records were considered by the experts to be of paramount importance as all of these mentioned that in prehistoric days, Kashmir was a great lake which reached a level of nearly 2000 feet above the present level of the valley. Further, they provided the information regarding the original settlers of the land, their dwellings, their socio-economic lives and cultural contacts with the outside regions. In short, the ancient texts offered exciting opportunities by presenting a fascinating story for the geologists and a remarkable continuity of culture for an archaeologist.

The importance for quaternary investigation and the infilling of the lake designated as Karewas was recognised long back but serious interest in such geological events of the land was first taken up by Godwin-Austen (1859-1880) who was only an army surveyor. After him the geologists of Geological Survey of India and other experts in the field worked on the Karewa geology from time to time and brought about important conclusions in relation to Karewa sequence. De Terra and Patterson (1939) did considerable field work for building up a stratigraphical sequence for the Karewa deposits, glacial successions and made some stray references to pre-historic human settlements. Subsequently more and more observations were made but these had vital shortcomings.

There were conflicting views put forth. Some considered the Karewas of fluvial in nature while some argued that most of the deposits are of lacustrine character²¹. Finally, these were identified as glacio-fluvial, fluvial and aeolian sediments. Still the older geological columns were largely unexplored.²² The views of the earlier geologists and explorers needed to be reviewed afresh.

The multifaced investigations carried in early eighties of the century have given tangible results for climatic sequences for the last 4 MYr based on the well-documented succession of pollen diatom, charophytes, mega-plant fossils, vertebrates, ostracodes etc. With the aid of these varieties of physical techniques, climatic data has been obtained besides the spread of individual type of faunal and floral species during the last four million years. The lake beds defined as Karewas have proved to be a dependable source material for the quaternary, Palaeoenvironmental and Palaeoclimatic changes, the glacial and interglacial processes and the history of settlements which in turn suggest intensive modes of subsistence pattern. Besides preserving the sequence of climatic events, these Karewas have revealed the stages of migration and extinction of various species of animals and plants also. The post-glacial warming started around 20,000 B.P. with the development of palaeosol accompanied by C3 type plants and the emergence of upper-palaeolithic culture. Further, the pollen evidences from various sites and lakes suggested that the valley experienced cool, warm and again cool and warm periods. These frequent changes had profound influence on settlements.

The multidisciplinary data showed that during cold periods conifers dominated the pollen diagrams and during warmer periods, broad-leaved elements show a significant increase. Similarly, faunal changes have been recognized which occur in the strata associated with both the cold and

warm climatic phases. The detailed studies on loess and palaeosols, the topmost deposits of Karewas, have been examined to represent the warming and cooling trends. Associated with the 2nd palaeosol, upper palaeolithic settlements have been located signifying a distinct climatic amelioration around 20,000 B.P. Such periods have been repeated in around 5,000 B.P. 1800 and 1000 B.P. coinciding with an increase in human settlements. Settlement patterns have changed reflecting the abandonment of smaller villages and the increasing concentration of people on such sites where better economic advances were made. The archaeological materials obtained from such sites demonstrate considerable economic, religious, cultural, architectural and undoubtedly political interaction with major cultural zones of the adjacent regions.

The new discoveries and new analyses of material offered a fresh evidence to interpret the pattern of changes in settlements in a rather wider sense. The accounts of all these factors and well-authenticated events against the background of literary documents mark a synthesis of different elements which appear widely different. A number of researchers from scientific and humanistic disciplines have contributed in evaluating the data for changes in settlements and their resource areas. An attempt has been made in the ensuing chapters to have a correct but a chronological perspectives of such source material.

Notes and References

1. S.L. Shali, 'Effects of Climatic Changes on the History and Culture of Kashmir,' *ME*, XII-1988, p. 109.
2. S.M. Ahmed, 'Central Asia and Kashmir,' *Central Asian and Western Himalayas - A Forgotten Link*, Jodhpur, 1986, p. 2.
3. *KPCP*, Kashmir Palaeoclimatic Project. The project was initiated by Prof. D.P. Agarwal in 1979-80. Sponsored by the Department of Science and Technology, it carried on its research work for about a decade. The scientists, scholars, archaeologists, from Delhi, Garhwal, Gujarat, Kashmir, Lukhnow, Punjab Universities, from Birbal Sahni Institute of Palaeobotany GSI, PRL besides the students and experts from foreign universities and institutions participated.
4. *Report*, p. 41.
5. Vidya Dhar Mahajan, *Ancient India*, S. Chand & Co., Delhi, 1960 p.8. 'Kalhana, its author is counted best among the Indian historians' and Romila Thapar, *A History of India*, Penguin Books, p. 226.
6. S. Beal, *Si-Yu-Ki (tr.) Vol. I*, New Delhi, 1970, p. 149.
7. R. V. Krishnamurthy, Michael; J. Deniro & R.K. Pant., 'TEPCCK' *Nature*, Vol. 298; No. 5875, pp. 640-41.
8. D.P. Agarwal, *Man and Environment in India through the Ages*, New Delhi, 1992, p. 115.
9. R. Dodia, H.P. Gupta, Chetna Mandavia, Chhaya Sharma & R.K. Pant, 'Palynological Investigations on the Lower Karewas, Kashmir', (*KPCP*). *ME*, Vol. VI, 1982, p. 23.
10. Rekha Dodia, *Palynological Investigations of the Kashmir Valley, India*'. (Unpublished thesis) Gujarat University, 1983, p. 249.
11. G. Singh & D.P. Agarwal, 'Radiocarbon Guidance for Deglaciation in north, western Himalayas', *Nature*, 1976, Vol. 260 (548), p. 232.

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12. D.P. Aggarwal, 'Cenozoic Climatic Changes in Kashmir': The multidisciplinary data, *Climate and Geology of Kashmir and Central Asia*, New Delhi, 1985, p. 9.
13. G.M. Buth, R.S. Bisht and G.S. Gaur, 'Investigation of Palaeoethno-botanical Remains from Semthan, Kashmir', *ME*, Vol. VI, 1982, p. 41.
14. *Ibid*, p. 44.
15. *RT*, I. 104.
16. *Ibid*, I. 116.
17. V. Trenckner, *Milinda Panha* (ed.), London, 1880, p. 420.
18. *RT*, I. 312-316.
19. *Ibid*, II. 18-19 & 50-51.
20. *Ibid*, I. 180-184.
21. D.P. Agrawal, *op. cit.*, p. 1.
22. D.K. Bharat, *ME*, VI, 1982, pp. 46 & 54.

Material Culture

1. Effects of Natural Surroundings on Material Culture

The valley of Kashmir ($33^{\circ} 25'00''$ – $34^{\circ} 39'30''$ N and $73^{\circ} 55'05''$ – $75^{\circ} 36'30''$ E) is distinguished for its physical features. It is oval, boat-shaped, intermontane valley about 140 km long and upto 60 km wide. It is enclosed by a chain of formidable mountain ranges and is blessed with ever running rivers, streams, lofty plateaus and lovely lakes. The valley is defended by great mountain barriers which vary much in height. It is surrounded on the northeast by the Great Himalayas, Pir Panjal on the southwest, Kajrag on the northwest and Saribal on the southeast. The Himalayan Range rises abruptly to well over 4000m while as the Pir Panjal Range, which contains numerous summits around 4000m high, delineates the valley on the southwest side. The Pir Panjal Range starts from the southern-most part of the valley, the present day Banihal tunnel (9200 feet above sea level) and after running for about 56 kilometres east to west at which point, it turns north-northwest. It receives the highest elevation in its central part, the Tatakuti peak (15,524 feet above the sea level).

The mighty rampart of Pir Panjal Range has played a vital role in influencing the climate of the valley and has always been a suitable route of communication with the outside world.

The detached situation of the valley was disturbed in ancient times by migratory hordes from the other side of the mountain ranges classified as the Pir Panjal Range, the Jhelum Valley Range and the north-eastern Range.

The most important and frequently used routes crossed the mountain-barrier of the Pir Panjal Range. The Banihal pass owing to its small elevation was a convenient route. It has now become as effective system of communication with the rest of India after the construction of Jawahar Tunnel. It remains open throughout the year. The other shortest route used in ancient times was through Budil pass (14,120 feet high). It lies on a line which connected the Kashmir valley with Sidau on the other side of the mountain, Akhnoor in Jammu and also Sialkot in west Pakistan. The Pir Panjal Pass (11,400 feet high) or also known as Shupain road was frequently used during medieval and Mughal times. It was the imperial route of the Mughals. The other prominent route in ancient times was the Toshmaidan pass which connected the valley with the kingdom of Lohara (Punch) and western Punjab.

The Jhelum valley range lies in between the two ranges below Baramulla. One to the south is a branch of the Pir Panjal itself and the other on the north is of the Kajnag range. These two ranges accompany the course of river Jhelum for about 13 kms. when it meets Kishanganga river at Domel. In the past it was the main gate for entering into the valley and was of great strategical importance.

The northern and eastern mountain ranges connected the valley with the region of Dardistan, Ladakh and Central Asia through Burzil pass (10,740 feet high) and Zoji-La pass (11,300 feet high).

The river Vitasta (Vedic name) or Vyath (Kashmiri) and later on known as Jhelum is fed with numerous streams, springs, canals and rivers like Veshav, Rembyar or Rambiar, Ro-mshi, Liddar, Dudhganga and Sind. All

these affluents bring about fertile silt from the surrounding mountains and deposit it in the plain tract of the valley from Khanabal to Baramulla on either sides of its banks covering a distance of 108 kms.

More than the half of the valley floor is covered by flat surfaced mounds or plateaus or Karewas also called Udars in Sanskrit and in Kashmiri languages. These are the sediments that filled the lake basin during a series of glacial and interglacial events that the valley of Kashmir had witnessed. Ancient settlements have been spotted over the top of these upraised plateaus.

There is no dearth of water. Besides the rivers, streams, canals or narrow channels, there are numerous lakes located both in the low area and in the mountains. The prominent ones in the former category are Wular, Manasbal, Anchar, Dal, Hokarsar etc. In the latter category, mention may be made of Gangabal, Sheshnag, Tarsar and Marsar, Kounsarnag, Alpather, Bothpatri besides other mountain springs. More than 2,590 km of the total area of the valley floor is under water.

Its geographical or physical features did not allow it to remain long secluded and free from external traffic. The snow-capped mighty and lofty mountains, upland pastures and meadows, glistening torrents, murmuring brooks and rivers, streams and lakes full of transparent water, fertile soil, rich and colourful flora, fauna and ideal climate aroused a profound longing in the minds of the people of the adjacent regions to come over here and enjoy the superb and magnificent atmosphere of this land of perennial beauty and sublimity.

The influx of the people continued unabated after the post-glacial period. Trade, religion and other cultural currents followed the ancient routes resulting in the migration of nomads of prehistoric times, the advanced

people like Harappans, Mauryas, Indo-Greeks, Shakas, Kushanas, Hunas, Sayyids, Mughals, Sikhs, Dogras and others. In this way it became a melting pot of nations and cultures. Many empires rose, flourished, decayed and even disappeared. Some of the invading tribes, keen to spread their own mission and culture, obliterated the traces of the preceding cultures so much so that in many cases nothing is left. However, thoughts, ideas and cultures have poured in and out of the valley from time to time and in the process, the valley and people developed close contacts with its neighbours, Gandhara, Afghanistan, Iran, Western Turkistan or Sinkiang, Tibet and China. The people of the valley have, therefore, borne the brunt of the attacks from outside forces and after-effects of natural agencies. There are definite traces of similarities, commonness and affinities in socio-cultural relations of the people of the adjacent regions with the inhabitants of the valley itself. Mutual contacts, however, primarily depended on the climatic conditions in the past. The Kashmir valley provides a potential field for the relative chronology and evolutionary trends in determining the climatic changes and the gradual stages of advances of human cultures.

2. Land Formation

a) Literary Accounts

Kashmir, it appears, is the only region of the world which has unique and distinct literary and legendary sources regarding the origin of the land or the people duly substantiated now by the scientific data. The references in the sacred texts give detailed information of the valley and also about the customs, beliefs and traditions of the people who inhabited it soon after it became worthwhile to live in.

The *Nilamata Purana*¹, the oldest surviving literary work refers that the valley in the past was a vast lake called *Satisaras*, the lake of Sati—the consort of Lord Shiva. Kalhana too, in his historical work, *Rajatarangini*², the only authentic literary text in ancient Indian literature, reproduces almost the same version about the land and the people. All other literary works of later dates reiterate similar versions³.

The summits of the mountains encircling the valley were covered by ice sheets in pleistocene times. During warm periods, the ice on the glaciers rolled down and melted. Day in and day out, the water at the foot of the mountains accumulated and thus gave rise to a vast lake. The water became deeper and deeper with uninterrupted flow of water from mountain channels with the result that the outlet of the lake got blocked. In it Mother Sati or Parvati, after whom the lake was named, used to sail from her abode on the Haramukh mountain⁴ (16,890 feet high) upto another mountain lake, Kounsarnag (ancient *Kramasaras*)⁵ at the foot of one of the highest of three peaks (15,523 feet high) to the west of Banihal. This lake has icy cold water and commands an awe-inspiring and magnificent view of the valley. The three snowy peaks encircling it are, according to the legend, the seats of the Hindu Trinity, Brahma, Vishnu and Shiva who jointly found out means to desiccate the lake.

The charming lake of Kounsarang or *Kramasaras* (foot lake) is also known as *Vishnu Pad*. This gleaming turquoise lake, closely surrounded by mountains on the east and west tapers towards south-east and exactly looks like a foot with five toes and a heel. According to ancient texts, Vishnu in his fish incarnation had bound his boat to the mountain of the lake as a result of which the place is known as *Naubhandhana Tirtha* (sacred pilgrimage of the place where the boat was tied)⁶.

Legendary account states that the gods took their abode here in order to kill the demon, *Jalodbhava* (water-born), who resided in the lake and caused distress to the people. The grandson of Brahma, the father of Nagas, sage Kashyapa, while on his pilgrimage to the sacred places in the north of India, heard from his son, Nila, the king of Nagas in Kashmir about the sufferings of the people because of the havoc created by the demon. The sage, in order to relieve the people of the continued agony, implored Brahma and other gods for help to punish the demon. Despite warnings by the gods, the demon hid himself in the lake and refused to come out. Vishnu, however, promised to help the sage. He called upon his brother, skilled in engineering feats, Balabhadra, who pierced the mountain with his weapon, plough share, near Baramulla. The water of the lake drained out but the demon became invincible in the swampy nature of the soil. There was darkness everywhere. Shiva then held Sun and Moon in his two hands and with their help could locate the demon in his hiding place. Vishnu then himself attacked him and in a fierce fight, the demon was finally killed. It was, therefore, the joint result of the efforts of Brahma, Shiva and Vishnu that the staunch enemy of human beings, *Jalodbhava* demon could be killed and that sage Kashyapa could inhabitate the people without any danger to their lives. The land was since then named as *Kashyapa Mar*. *Mar* in Sanskrit means a house and as such 'Kashyapa Mar' meant the house of Kashyapa. In course of time, the word got degenerated and the land became to be known as 'Kashmir'.

The existence of lake and its desiccation is also recorded in Buddhist texts. Hie-un Tsang who visited Kashmir in 631 A.D. calls the valley by the name of *Kis-shi-mi-lo* and regarding its origin and geographical features, he upholds the views of the authors of *Nilamata Purana* and the

*Rajatarangini*⁸. Muhammedan chronicles or *Mahatmyas* of later dates also reproduced the same popular tradition.

The first Muslim writers who gave detailed description of the land on the basis of the earlier chronicles were Abul Fazal⁹, Haidar Malik Chadura¹⁰ and the writer (anonymous) of *Baharistan-i-Shahi* in the beginning of seventeenth century. They were followed by Pandit Narayan Kaul 'Ajiz' (1710)¹¹ and Khwaja Muhammad Didahmari (1738)¹². In a modified way, the same legend was repeated by later Persian chroniclers also.

Mulla Abd-al-Nabi, Kashmiri, related the story in an exaggerated form. He combined the legend of the lake and its desiccation with the 'Deluge of Noah'. According to him, the entire world, including Kashmir, was engrossed in water. The water-logged valley of Kashmir was called *Satisar* in which Parvati, wife of Lord Shiva, lived. After the deluge the people lived on the summits of the mountains which only were visible. He connects the story with the advent of Solomon whose 'Throne' landed on the Shankaracharya hill. The people, it is said, used boats for their transport in the lake. The hill itself since then is known to us as *Takht-i-Sulayaman* (the throne of Solomon). Solomon, in order to have sufficient land for himself and his people, ordered his two *jins* under his command, *Kashf* and *Mir* by name, to drain the water out. They obeyed the orders and got the water drained out through a gorge of Khadanyar, a place below Baramulla. After the desiccation, the valley was named after the two *jins* as 'Kashaf Mir' or Kashmir¹³.

The most comprehensive and detailed account of the legend is given by the indigenous Persian scholar-cum-historian, Pir Ghulam Hassan alias Hassan Shah (1832-1898). According to him, in ancient times, the entire valley was under water. The people lived on the tops of the mountains which were interconnected. They used to

move from one end to the other in boats. The water of the lake swelled up due to constant flow of springs and streamlets from the mountains besides the rain and snow. The outlet of the lake got blocked. He also relates that the lake was named as *Satisar* after Sati or Parvati who used to go round it. He then mentions the struggle of sage Kashyapa in killing the demon *Jalodhava*, formation of the Hari Parbat hill, and the draining out of the water through the gorge at Baramulla. He further supports the view point of the earlier writers that the valley was named as 'Kashyapa Mar', the house of Kashyapa. Curiously enough, the writer himself did not feel convinced with the story and in the end he says that the factual position is best known to God.¹⁴

The legend about the lake and the process of drainage was carried on by Europeans also. It was referred first by the famous French Physician, Dr. Francois Bernier who accompanied Aurangzeb to Kashmir in 1663 A.D. On seeing the Baramulla gorge, he was convinced that the valley was submerged in water but doubted that the opening of the gorge could be the work of a man¹⁵.

The *Mahatmayas* of much later dates written by indigenous Sanskrit scholars give a detailed description of the individual famous shrines. One such important and most popular text is of *Sharikamahatmaya*. It relates that Goddess Durga took the shape of a Sharika Bird (*Maina*), Kashmiri *Haer*, and carried in her beak a pebble. She threw the pebble on the water demon and killed him under its weight. The pebble swelled into a hill which to this day carries its name as Hari (Kashmiri *Haer*), Parvat (hill). The hill as such is still being held sacred. She is said to have taken her abode on the hill and the sacred rock with her symbolic diagram 'Shrichakra' on its north-west side is held in high esteem. The place is much-frequented place of pilgrimage. The recent findings have supported

the ancient traditions. Almost all the rocks and stones on the hill have recently been minutely observed to contain images, *Mantras* and *Yantras*¹⁶. Circumambulation of the hill is considered a pious work by the locals.

The observation of nearly every writer of *Puranas*, religious or historical texts, foreign accounts and *Mahatmayas* tend to prove that the valley was partly or wholly occupied by a lake. The interesting part of the whole sequence is that the written records have been confirmed in the field by the scientists of various disciplines. It, as such, points out that the people of the land in ancient times were acquainted with the hydrography of the land, and could offer correct interpretation of the geological records.

b) Field Investigations

The records of the ancient texts and legendary traditions regarding the origin of the land and its people drew the attention of the geologists, archaeologists and other scientists during the last century and a half. The data collected by them in the field confirms that the valley of Kashmir was once, a hundred of million years ago, one vast lake hundred of metres deep.

During the period of Ice ages, the summits of the mountain ranges which enclose the valley at close vicinity were covered with glaciers. The plains too must have been filled with the snow. The pressure laid by the ice and at intervals by heat squeezed the water out. Then the underground rivers and streams through the steepness of the mountain slopes flowed with great rush and filled the area down below with the water. Obviously there was no trace of the ground surface. Its depth deepened with the input of glaciers which rolled down the mountains. The avalanches rolling down the high peaks like Tatakuti or those in the Kounsarnag area of Pir Panjal division or from the Kolahai, Sonamarg or Haramukh in the Himalayan

division must have floated in the water-logged valley floor like icebergs. In the process, they supplied enough water to the already existing storage.

The Pir Panjal which ranks second to the Himalayan Range separates the Kashmir valley from the plains. The Pir Panjal Range has to a great extent determined the geographic changes.

There is an unanimity of opinion that due to the rise of Pir Panjal Range flank, the south west of the valley was upthrust along the Himalayan axis about 4 MYr ago. This upliftment impounded the drainage of the water and gave rise to a vast lake which engulfed the entire valley floor covering an area of 5000 sq. kms. between the Pir Panjal Range to the south and the Himalayan Range to the north. Again about 200 KYr ago, there was further upliftment of the Pir Panjal, the lake water shifted towards the Himalayan flank resulting in the exposure of settled material at the bottom of the lake or the sediments on the south-western side. The lake sediments on the Pir Panjal side were also lifted and these turned to be stable stratum for the deposition of aeolian deposit. At about 85 KYr, there was further uplift of the Pir Panjal Range. This time the flank breached near Baramulla. This event also made the river Jhelum to emerge which drained out the lake water. The lake sediments, after the drainage of the already shrunken lake through a gorge at Baramulla, were now exposed throughout the valley and now occupy half of the total area of the land¹⁷.

The north-western parts of the valley are still occupied by lakes and swamps. The Wular, Dal or Anchar lakes lie in the floor plain of Jhelum and are remnant of that very lake. The swampy lowlands have been cut by the river Jhelum and its tributaries out of the lake sediments.

These sediments are the remnants of the lacustrine material of the lake and are the outcrop of the Kashmir

valley basin. These are in the present day seen in the form of terraces, mounds called *Karewas* or *Udars* in the local language.

The *Karewas* which once formed the bed of the Quaternary lake, preserve a complete record of the Pleistocene, glacial and interglacial events, after-effects of thrusting of mountain flanks, Palaeoclimatic changes, various stages of shrinkage of the lake, emergence of river Jhelum and its tributaries, formation of valley, presence of fauna and flora, their gradual extinction and other such environmental changes. On these factors depended the stability of the human settlement. Kashmir was subjected to succession of glacial periods and interglacials, natural calamities and climatic changes, migration and extinction of various species of animals and plants which all put together determined the continuity or the disappearance of the settlements. Palaeoclimatic and geographic conditions are thus intimately involved and the diagnosis of the *Karewas* reveals the environment in which these were found. In this sequence of sedimentation-environment, the settlement pattern studied in relation to climatic changes provides a rewarding source material for cultural changes.

The sand and mud were carried down through the action of the water into the deep lake and spread out there in layers which hardened to stones as the water receded.

Geological, geomorphological and lithostratigraphical studies were taken up in the past by various scientists. The geologists like Godwin-Austen (1859, 1880)¹⁸, Lydekker (1878, 1883)¹⁹, Middlemiss (1911, 1924)²⁰, Dainelli (1922)²¹, DeTerra and Paterson (1939)²², Wadia (1941, 1948)²³, Farooqi and Desai (1974)²⁴, Bhat (1976)²⁵, and others have made a meaningful study in relation to the geology of Kashmir. The other workers who discussed geomorphic setting for the lake were Thomson

(1852)²⁶, Drew (1875)²⁷, Oldham (1893)²⁸ etc. The animal fossils of these Karewas were studied by DeTerra and Patterson (1939), Tripathi and Chandra (1962)²⁹, Badam (1968, 1972, 1979)³⁰, Tewari and Kachroo (1971)³¹ etc. DeTerra and Paterson (1939) again described the details about the plant fossils and observations were followed by other experts in the field as Singh (1963)³², Vishnu Mittre (1964)³³ and so on. Archaeological settlements also were referred to by DeTerra and Paterson (1939)³⁴ and then after a gap of three decades by Sankalia³⁵.

In view of the importance of those lake sediments presenting an unique opportunity for study of Quaternary Palaeo-environmental changes, a detailed lithology of all the major exposed sections of the Karewas was envisaged so as to have a composite litholog by correlating data based on physical dating methods. The lithologs were measured with high resolution and dated through different techniques. This was achieved through a multi-disciplinary project—Kashmir Palaeoclimatic Project (1980-87) funded by the Department of Science and Technology, Government of India.

The sediments of the Karewa group represent a thick succession of sand, mud and gravels. The systematic study of these exposed sedimentary exposures revealed that few parts of the primaeval or Karewa lake had a depth of ca. 30m and that it continued to be fed with water coming from the adjacent mountain areas.

Three main structural units have been recognized within the Karewa deposits which rest on a basement of Palaeozoic and Triassic rocks. The lower two are lithologic units demarcated as the lower Karewa and upper Karewa deposits separated by the second glacial moraine and outwash. The third unit comprises a loessic deposit, capping the Karewas.

The stratigraphical sequence of the Karewas is now redefined under the terms as Hirpur Formation, Nagum Formation, and the Loess.

The Hirpur Formation, the first phase of the entire sequence defines the lower Karewa stage when the entire valley floor was within the domain of a large lake or the Karewa lake. The deposits of this stage are fluvio-lacustrine in nature and its main constituents are various laminated silts, clays, lignite beds and conglomerates.

The lower Karewas are well exposed on the southwest of Pir Panjal side of the valley. The basin of the Karewa lake was available for the build-up of the Hirpur Formation from early paliocene to the close of lower pleistocene. Its type section is exposed along the Rambhara river at the village Hirpur in Shopian, district Pulwama³⁶.

The three-fold sub-division of the Hirpur sequence is determined as (i) pre-conglomerate zone (zone I), (ii) a conglomerate zone (zone II), and (iii) post - conglomerate zone (zone III). The thickness of zone I is 250m, of zone II 2,200m, and of zone III 3,200m³⁷.

The sequence of the pre-basal conglomerate represents deposit under 'slack water' i.e. in low energy conditions. The stratigraphy over the basal conglomerate consists of grey clay, lignite, grey sandy clay, greyish sand, varve or laminated clays. There is a sudden change noticed in the beginning of the deposition of the conglomerate beds. The presence of thinly laminated mudstone with that of thinly bedded sandstones is suggestive of a change in domain from distal fluvial/channels with well developed flood plains confined to bodies of water and related shore-margin activity.

The Rambhara river which cuts through the deposits on the south-west side of the Pir Panjal has exposed the type sections of the Lower Karewas right from Dubjan to Hirpur and Shopian. Other such large exposures can be

noticed along the river Romushi at Ichhagoz, Pakharpura, Aglar, Drabgam and Romu³⁸. However, the Hirpur section has been dated from 4 M.Y. to 1.8 M.Y. and the Romushi section from 2.4 M.Y. to 0.2 M.Y. (S. Kusumgar, *et al*, 1985).

The tectonic correction of the strata of Hirpur is determined with those of Middle and Upper Siwalik.

Nagum Formation or the second phase marks the period when the lake was restricted towards Himalayan flank and is termed as Upper Karewa. These Upper Karewa beds have been noticed to contain three distinct horizons.

The bottom-most deposit of this sequence has been examined to be of thick lacustrine clay beds with different shades of yellow and grey laminations.

The next deposit which superimposes the bottom one is marked by a light brown or pinkish compacted, unstratified, homogenous silt about 3m thick. This silt, gradually grades into a dark raddish brown, nearly 1m thick and is very well developed. Its granular texture and vertical columnar cracks are indicative of loessic weathering.

The third deposit consists of ash, charcoal streaks and regular floor levels marking the Neolithic settlements. However, it shows a disconformity with the lower weathered horizon suggesting thereby that the lower deposit got stabilised much before the occupation of its top by the man.

The Nagum Formation on the whole was identified to be of glacio-flucial facies, lacustrine facies and loess facies. Scanning electron microscope studies revealed the laminated clays in these deposits on the remnants of the Quaternary lake bed and differ from the superimposed silt. Sedimentation remained in operation in the Nagum lake until sub-recent/recent times. The well exposed

sections are at Sombur, Pampur, Olchibagh, Dilpur, Pattan, Burzahom etc³⁹.

In the past, no attempts were made to have the detailed sedimentological study of the Karewas. Now the scientists working in the *KPCP* have provided a chronological frame-work for climatic trends in the valley by utilising different parameters. The topmost silt-sized deposit is identified as loess. In this buried soils or palaeosols have been recognised which indicate phases of vegetational growth due to climatic amelioration. During the course of field investigation, more than four dozen sites of loess-palaeosol deposits were examined and sampled through varied physical techniques. A solid chronology for this important litho-unit in the stratigraphy of Karewas has been evolved. The exposed section at Burzahom, a well-known Neolithic and Megalithic settlement of the valley has recorded palaeosol deposits dated c. 31,000 and 18,000 B.P. with an archaeological deposit at top datable to c. 5,000 B.P. (Rekha Dodia, 1983). Similarly, such evidences with variations in time-scales have now come from other sampled sites of the valley.

There is an angular unconformity between Hirpur and Nagpur formations. It has been, however, observed that the stratigraphical relationship of the sequences on either flank of the basin is important in compiling the complete record of the past climate and also to get the relative position of the third litho-unit of the Kashmir Karewas, i.e. the loess.

Loess constitutes the top deposit of the Karewas. It is a silt-sized sediment, a wind born material deposited in periglacial environments and represents cold, arid conditions. It is wide spread in Kashmir valley both on the Himalayan and Pir Panjal flanks and is distinct from the fluvio-lacustrine sediments.

It is for the first time in the history of geology of Kashmir that loess formation has been observed to be laid out by alternating horizons of buried soils indicative of warmer and wetter climate. These buried bands of soil in the loess are defined as 'Palaeosols'. These loess-Palaeosol layers are very good continental palaeoclimatic indicators. Buried soils in the loess represented by dark bands indicate phases of vegetation growth due to climatic amelioration⁴⁰.

The sediments were already exposed on southwest after the shifting of the primaeval lake towards northeast side and as such loess exposures on the Pir Panjal flank of the basin show a continuity of longer record than on the Himalayan flank. Over 20m thick loess deposit on the Pir Panjal flank shows about 10 palaeosols. The loess got deposited on the lake sediments on the northern or Himalayan side only about 85 KYr when the Jhelum emerged and drained the lake water on this side also. On this side as such there are 10m thick loess deposits with 5-6 palaeosols. Accordingly the C^{14} dates give older dates for the Pir Panjal sites than on the Himalayan flanks⁴¹.

Like the Karewas in Kashmir, the terrace formations took place in Chenab and Tawi valley of Jammu region as well. These carry precisely the same position which the boulder fans and Karewas hold with the pleistocene sequence in Kashmir. The boulder conglomerates succeed the early Quaternary Siwalik just as in Kashmir fan formation followed the early pleistocene (first glacial and interglacial stage). Such operations could be co-related with the second or major Pir Panjal glaciation—this is evident from the glacially faced boulders in the ridge above Jammu⁴².

In the Valley, the three units of the lake infillings are clearly demonstrated. Their stratigraphic record is that of an inland lake with normal outlet marked by fluctuation and gradual silting. It has been observed that due to

tectonic process the shell or plant bearing upper Karewa beds rested on the eroded surface or folded lower Karewas. Without much dislocation or disturbance, the sedimentary filling of the basin along with the beach marks or the gravel strewn shore lines are still visible at numerous places on the north-eastern side. The Pir Panjal beach marks were further destroyed by erosion and morainic debris. The lowest beach marks of the Karewa lake have cut into upper Karewa clays and the beach marks of both the older and younger lakes have been identified on the slopes of the Shankaracharya hill in Srinagar⁴³. Impressive records of the beach of shore marks of the upper Karewa lake beds are also noticed on a section at Borus near Latpura village on Srinagar-Jammu highway on the right bank of river Jhelum.

The valley has witnessed combined effects of both tectonic and glacial influences which has brought about dramatic changes in the fauna and flora of the land. The high mountain glaciers are sensitive to high frequency climatic changes which controlled the human settlements in the valley. The entire area is, therefore, the best place for reconstructing Palaeoclimatic and Palaeoenvironmental events that have taken place in Kashmir.

The Palaeoclimatic research does not only provide guidelines for understanding the processes of climatic change over different time-scales but also provides a clue to environmental changes. The geoclimate-environment relationship, therefore, assumes great significance in presenting a sediment record going back to c. 4 m.y.

c) Palaeoclimatic Inferences

The natural surroundings and other resources are preconditions which affect subsistence and the growth of settlement. Ecological connections around and in the settlement become necessary so as to understand the

distinct phases of the cultural development. The important factors responsible for creating resources to the subsistence activities resulting in the outcome of profound cultural changes are climate, hydrological conditions, soil, flora, fauna, communication and other such relative problems. With the help of numerous biological and physical-chemical methods, the study of past settlement and its changes are analysed. By such interdisciplinary investigations, man's activity and his impact on the cultural landscape is known. Many of these factors when studied prove useful in identification of the means helpful to the economy of the settlement and also the settlement pattern as a whole.

Kashmir is a land of unparalleled climatic and physiographic complexity and extremes. Because of its peculiar position, it has a climate free from the heat of India and the rigours of cold that we normally come across in the mountainous regions in the north and east. The upthrusting of Pir Panjal by several hundred metres during early pleistocene period brought about a change in the climatic conditions of the valley. Its low level in previous times must have covered the valley under the monsoon influence of the plains. Now the climate is considerably influenced by the present position of the Pir Panjal range. This is shown by the climatic variations on either sides of the Range. To the south of it, a sub-tropical climate is experienced, but the corresponding area at similar altitude to the north (Kashmir Valley) has a temperate climate. Still in the summit region of the Pir Panjal Range, barring the rainfall, the climate is more or less the same on either sides. The variation being that the snow melts earlier on the southern side than on the corresponding side on the northern slopes, during summer months. However, the rainfall varies from 101 mm in Srinagar or less against 305 mm, recorded in Jammu during monsoon period. Such variations are of great geological significance. The height

gained by the Pir Panjal Range has as such certainly acted as a barrier between the two sides of the Range. During winter months, the cool air brings down the temperature and the humidity reaches its climax. The snow falls, which melts, and increases the prospects of a good harvest⁴⁴. However, the excess snow at times interrupts all communications with the plains and thus hinders the movements of the people even now.

The valley, during pleistocene period, had witnessed four glacial epoches and three interglacial periods and during the first low level epoch of glaciation, there was maximum extension of ice. In preglacial times, the flanks of both the Pir Panjal and the Himalayan ranges experienced repeated uplifts which had resulted in the dissection and establishment of the major drainage pattern. These events were the driving force for the development of the cultural landscape.

The glacials represented the refrigerator of the climate when the ice sheets covered much of the land. All over the valley, the ice sheets covered much of the surface. The climate was cold and foggy, generally unpleasant for the survival of any type of fauna or flora. It also reflected variation in ecological conditions bringing about changes in the geographical relation of the land. Besides, these glaciers were responsible for the extinction of general species.

During the glacial period, the entire valley was covered not only by snow but by a long line of frozen ice which along with the mountain debris came down very low even reaching the cultivated grounds. These boulder type solid blocks bore striation marks and are known as 'Moraines'⁴⁵. These belonged to three or four successive glacial advances and are interbedded with the Karewas. The presence of these 'glacial drifts' or moraine deposits left over by the glaciers has brought about the change in the climate, plants and animals, their migration and extinction. The

first and second glacial stages were attributed to lower Karewas and the third and fourth stages to upper Karewas. Numerous lakes in Kashmir owe their origin to the action of glaciers. A typical glacial lake has been spotted. It is named as Damamsar and lake is situated nearly 9 kms. from the tree line on the northern slopes of the Pir Panjal Range. It is ca. 3,940m above sea level near Toshmaidan, an important pass on the Pir Panjal Range. Even if it is at present surrounded by treeless environment, but the pollen analysis of the lake sediment at its bottom characterised by blue-grey clay revealed the existence of tree elements, although the nearest pine tree grows at a distance of 9 kms. from lake. Similar is the case with the vegetational history. It has thus been established that there was a period of increasing warmth followed by a period of maximum warmth. It was again then followed by decreasing warmth⁴⁶. Normally after the 4th glaciation in Kashmir, it has been observed that the deposition of glacial moraines at various levels over Toshmaidan itself blocked the free flow of water at several places resulting in the formation of small lakes. The investigation, however, revealed at Damamsar, the continued process of long distance transportation of pollen grains.

These moraines belonging to three or four successive glacial advances form the part of the Karewa deposits at various levels and stand recognized. Such morainic deposit in the Sind Valley were recognized as the earliest and stand as a key in relation to other glacial strata.

The deep mud deposits or mires occurring in large number of glacially-fed basins are enclosed by terminal moraines. These are commonly known as 'margs'. These are generally situated on the mountain ridges but also occur in river valleys. Some of the best examples of such glacial basins on the northern slope of Pir Panjal Range are Gulmarg, Toshmaidan, Liddar marg, etc. A pleasant plain,

Sonamarg, Minimarg and Liddarwat are on the southern slopes of the main Himalayas. These high alpine are surrounded by forests. These beautiful charming high growing grounds were the chosen spots of nomads in warm or summer months. The terminal moraines of the latest glacial periods are seen capping the top beds of the Upper Karewas. Their swift movement over the slopes of the mountains could have taken place during interglacial periods which followed each glacial epoches and represented warm climate.

The cold and icy periods of glaciation were usually broken by the interruption of the interglacials when each glaciation or 'Ice Age' was divided by warmth. The snow melted all over the valley. The ice then retreated from the hills to higher altitudes and thus caused erosion to the plains. Many species of plants and animals thrived in such warm periods (interglacials). These vanished in each glaciation. Obviously, the climate must have been congenial in such interglacial period for the mighty beasts to roam about over mountain belts. The 'Ice Age' hunter came across the tracks left in the soil by these wild beasts.

The higher reaches were always subjected to disturbances but the low areas or the lake sediments caused by tectonic or erosion, are best suited for preservation of fauna and flora. The Karewa Formation in particular, has produced well documented succession of pollen, diatom, charophytes, mega-plant fossils, vertebrates, ostracodes etc. which determined the spread of individual fauna and floral species during the last 4 MYr. This has enabled us to evaluate a climatic trend in the valley.

It has been ascertained that the climatic pattern of Kashmir follows a global trend. There are some of the species which were represented in the Karewas during warm, temperate and humid climate, but do not at all grow in the valley at present.

The glacial advances, as such, are interpreted in terms of palaeoclimate. These have been represented by moraines and outwash in montane valleys and by thick gravel fans within the Karewa beds. Interglacials were inferred on the basis of erosion and by the deposition of lacustrine sequences.

The initial study of the four-glacial model was in recent field work reported to be an inadequate basis for interpretation of the Kashmir sequence. It was argued that the valley had witnessed only two major phases of Ice advances. It was further reported that because of destructive nature of glacial advances, the moraines at Sonamarg, Pahalgam and Gulmarg are likely to be the oldest features in their respective valleys. Accordingly, it was suggested that large variations in relative dating measures are required before moraines are assigned to separate glacial advances⁴⁷. However, the detailed investigations carried out on ice-advances in relation to the chronology of the Karewa sediments of Kashmir have not been disputed by other scientists who followed De Terra and Paterson. The earlier claim of four glacier epoches and corresponding interglacial periods, therefore, stand.

The density of subaqueous plant population was less in the initial stages but increased tremendously in the final stages of lake evolution. The Karewa lake was almost a shallow, non-stratified, non-glacial lake where aquatic vegetation like *Trapa*, *Typha*, *Nymphaea* flourished indicating a warm climate at least in the valley⁴⁸. Such aquatic plants like *Trapa*, (water chestnut) in particular, flourish in the present day lakes like Dal, Manasbal and Wular or in the stagnant waters. This is a edible plant and its fruit is not only a popular food but is considered sacred. It is consumed on the days of fasting even now.

Along with these aquatic plant fossils, fossils of land plants, forest trees or shrubs like oak, willow, birch, aldar,

cinnamon are also found in the Karewa sediments. Some of these land plants grow at relatively high altitudes in the present day climatic conditions also. Their deposition in the low-level lake basin indicate that these were transported by the rivers coming from the adjoining mountainous areas or as a result of the upthrusting of the Pir Panjal. Hence, there are the mixed communities of plant fossils in the lake i.e. living in the lake and adjacent areas of the valley, and those of the mountainous region⁴⁹.

There are also certain plants, trees which grew in early pleistocene time but do not grow now. *Quercus* (oak) is represented by five types of species but none of the species is at present found in the valley. So also is the case with *Larix*. This tree loves warm, temperate and humid climate. It is found in the earlier stages of Hirpur Formation in the value of 20% in the initial stages, then of 5% and afterwards there is a sporadic occurrence. When the climate started cooling the atmosphere, *Larix* disappeared. The disappearance or reappearance of broad-leaved elements thus show alteration in climate⁵⁰.

In a similar context, animal fossil record has been encountered in the Karewa sediments which too prove changing trends in the climate of the land. In fact the species of our times are the successors of many which have died largely from natural causes or climatic changes in the distant past. The rich vertebrate fossils contents represent wide range of groups including primates, elephants, rodents, reptiles, fish etc. The appearance of a horse (*equus*), elephant (*elephas hysidricus*), cattle (*Bos*), deer (*cervus*) have been dated only after 2-4 MYr. Small mammals marked by Arvicolids and ostracod fauna have also been reported for the first time now and indicate warm, cool and cold phases and fresh water accumulation for their deposition. The remains of *elephas hysidricus* are now associated with the late pleistocene levels (200 –

250 KYr).⁵¹ It became extinct with the change in climate. The Sombur bone beds on the left bank of Jhelum in Pulwama district is known locally for the abundance of faunal element of *Elephas hysudricus*, besides the fish, bird egg shell fragments and lizards⁵².

The cores examined from some of the present day lakes have also provided a useful data of the climatic changes for the historical period.

The Karewas of Kashmir have, therefore, presented continuous record of the fauna and flora for the last four million years. A distinct climatic amelioration is indicated for the period covering 20,000 to 18,000 B.P., 5,000, 1800 and 1000 B.P. Obviously during such changes in the climate and environment of the valley, there have been increase in human settlements and at intervals during colder periods the man was on the move to warmer places. This to a great extent coincides with the literary documents and the recent advances made in the field of archaeology.

Notes and References

1. It is dated 6th-7th century and gives a detailed information about the topography of the valley. Prof. George Buhler highlighted its importance and was the first to call attention of the scholars to the material contained in the chronicle.
2. This is the only historical work based on earlier texts, inscriptions, coins, local traditions, etc. The accurate topography of the valley based on it, is described by Prof. Buhler in his report 'Detailed Report of a Tour in Search of Sanskrit' Mss. (Extra, No. XII, *JBBRAS*) made in Kashmir, Rajputana and Central India, written in 1149-50 A.D.
3. These pertain to Persian chronicles and Sanskrit texts 'mahatmayas' written between 15th to 19th century.
4. This is one of the massive mountain ridges, probably occupies the site of an old glacier. It is to the east of Nanga Parbat and guards the Sindh Valley. At its foot is the sacred Gangabal lake, the manifestation of river Ganges. Annually people visit the lake for immersing the remains of their dead. Its circumference is about 5 miles.
5. Situated at an altitude of over 12,000 feet, it is 2 miles long and three quarters of a mile broad. It is 47 miles from Srinagar, accessible through Shopian. It is the source of river Vesau (ancient Visoka) river, the main tributary of river Jhelum. Sultan Zain-ul-Abidin (1420-70 A.D.) used to go here to amuse himself with the natural scenery of the lake and its surroundings. See Srivara's, *Jaina-Rajatarangini*, 482 sq.
6. Aurel Stein, *RT* (tr & ed.) Vol. II, p. 393.
7. Prof. Buhler's Report, 38 sqq.
8. *Si-vu-Ki* (tr. Beal), I. 149.
9. *Ain-i-Akbari*, Vol. I.
10. *Tarikh-i-Kashmir*.
11. *Tarikh-i-Kashmir*.
12. *Waqiat-i-Kashmir*.

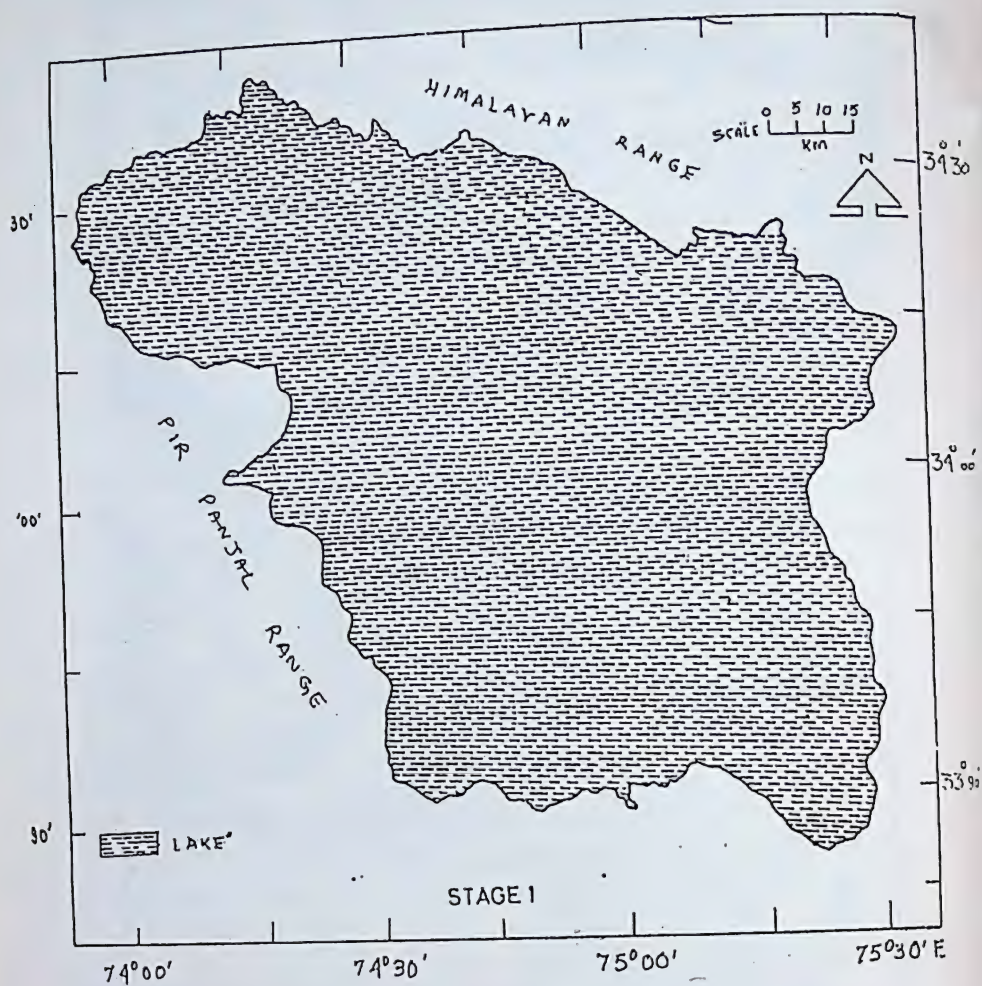
13. Maqbool Ahmed et al., *Historical Geography of Kashmir*, p. 34, New Delhi, 1984.
14. *Tarikh-i-Hassan*, Vol. I, p. 54.
15. *Travels in the Mughal Empire*, Westminster, London, 1891.
16. G.R. Santosh, Hari Parbat—A decoding the abstract Shira, J&K Academy of Art, Culture and Languages, Srinagar, 1987, pp. 1-3.
17. D.P. Agarwal, 'Cenozoic climatic changes in Kashmir. The Multi disciplinary Data, *Current Trends in Climate and Geology of Kashmir and Central Asia*, New Delhi, 1985, pp. 1-12.
18. 'On the lacustrine or Karewa deposits of Kashmere'. *Geological Society, Quart. Journ.* London, 1859, Vol. 15, Part 1, pp. 221-229 and 'On the Post-territory and more recent deposits of Kashmir and the Upper Indus Valley', *Nature*, 1880, Vol. 22, pp. 450.
19. Notes on the geology of Kashmir, Kishtwar and Pagni, *India Geol. Survey Records*, 1878, Vol. II, pp. 30-64 and 'The geology of the Kashmir and Chamba, territories and the British district of Khagan, *India Geol. Survey Mem*: 1983, Vol. 22, pp. 1-344.
20. 'Sections in the Pir Panjal and Sind Valley, Kashmir, *Rec. Geo. Survey Ind.*, 1911, Vol. 41, pp. 115-144 and 'Lignitic Coalfields in the Karewa formation of Kashmir valley, *Rec. Geol. Survey India*, 1924, Vol. 55, pp. 241-253.
21. Studisul glaciale: Sped ital de Fillippi nel Himalaia, Carocorum, a Turchestan, Cinese, *Rec. Sci.*, 1992.
22. *Studies on the Ice Ages in India and Associated Human Cultures*: Washington, 1939, Vol. 493, pp. 1-354.
23. 'Pleistocene Ice age deposits in Kashmir', *Proc. Nat Inst. Sci. India*: 1941, Vol. 7 (1), pp. 49-59. 'The transitional passage of pliocene into pleistocene in the north-western India', 1948, *Proc. Int. Geol. Cong.* 18th session, London, 1948, pp. 43-48, and the *The Geology of India*, London, 1970.

24. 'Stratigraphy of Karewas', Kashmir, India, *Jour. Geol. Soc., India*, 1974, Vol. 15(3), 3, pp. 299-305.
25. 'Stratigraphical Status of the Karewa group of Kashmir India, *Himalayan Geology*, Vol. 6, 1976, pp. 197-208.
26. *Western Himalaya and Tibet*, London, 1852.
27. *The Jammu and Kashmir Territories*, London, 1875.
28. *A Manual of the Geology of India*, Calcutta, 1893.
29. 'Detailed examination of the Karewas of Kashmir for the remains of early man', *GSI Report* (unpublished), 1962.
30. *Pleistocene Fauna of India*. Deccan College Post-Graduate Research Institute, Pune, 1977, Vol. 1, pp. 1-250, 1979.
31. On the occurrence of *Equus. Sivalensis* from Karewas of Shupian, *Recent Res. Geol*, 1977, Vol. 3, p. 468.
32. A preliminary survey of Post-glacial vegetational history of the Kashmir valley, *Palaeobotanist* 12(1), 1963.
33. On the Pilo-pleistocene Boundary of north-west India, *Palaeobotanist*, 1964, 12(3), 270-76.
34. *Studies on the Ice Age in India and Associated Human Cultures*, Washington, 1939.
35. Early Man in Ice Age, Kashmir, *Science Today*, 4(6), 1969.
36. Sheela Kusumgar, D.P. Agrawal and B.S. Kotila, "Magnetic Stratigraphy of the Karewas of Kashmir, *Current trends Climate and Geology of Kashmir*, Vol. VI, New Delhi, 1985, p. 17.
37. R. Dodia, et al. New Pollen data from Kashmir Bog. *The Evaluation of the East Asian Environment*, 1984. R.O. Whyte (Ed.), Vol. 2, pp. 567-578.
38. Ashoka Sahni, et al. 'Karewa Micro Vertebrates Bio-stratigraphical and Palaeoecological implications. *Climate & Geology of Kashmir & Central Asia*, 1985, Vol. VI, pp. 29-43 and D.K. Bhat, *op. cit.*
39. D.K. Bhat, 'A Review of the Stratigraphy of the Karewa Group (Pliocene Quaternary). Kashmir: *ME*, 1982, Vol. VI, pp. 46-53, and Sheela Kusumgar, *op. cit.*
40. A.E. Dodnov and S.P. Lomov, 'Stratigraphy and Pedogenesis of Loess Formation of Southern Tajikistan, *Climate*

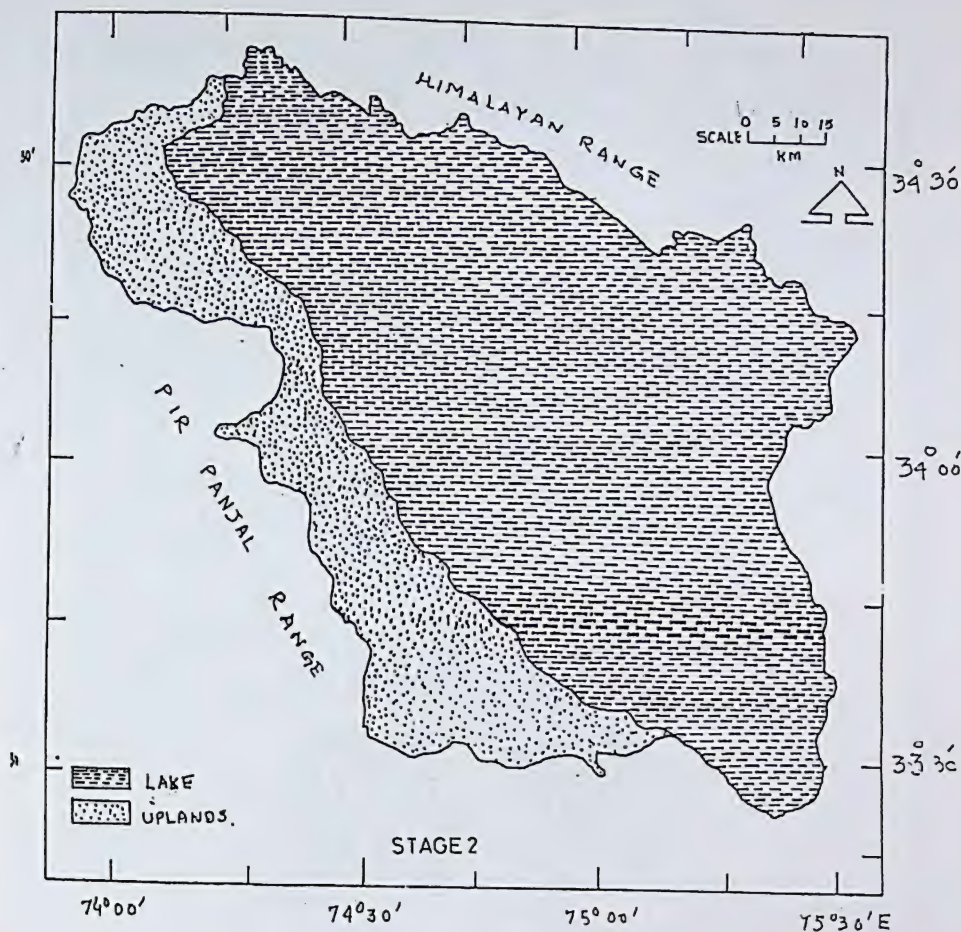
- and *Geology of Kashmir Central Asia*, New Delhi, 1985, pp. 223-225.
41. Sheela Kusumgar, et. al. - Studies on the Loess deposits of the Kashmir Valley and C-14 dates, *Radiocarbon*, 1980, Vol. 22, No. 3, pp. 757-762.
42. De Terra and Paterson, *op. cit.*, pp. 61-63.
43. *Ibid.*, pp. 51-201.
44. D.P. Agarwal, *Man and Environment in India through the Ages*, New Delhi, 1992, pp. 122-125.
45. Gurdip Singh, A preliminary survey of the Postglacial Vegetational History of the Kashmir Valley, *Palaeobotanist*, 1963, pp. 81-104.
46. *Ibid.*
47. Jonathan, A., The Quaternary Glacial History of Holmen and Kashmir, North West Himalaya, *KPCP*, Flayne Street: *Field Report* (Unpublished).
48. Indira Bir Singh, Sedimentary Pattern in the Karewa, Kashmir. India and its Geological Significance, *Jour. Plaeo. Soc. India*, 1982, Vol. 27, Ahmedabad, 1983.
49. *Ibid.*
50. Rekha Dodia, *Palyhological investigations of the Kashmir Valley*, India, Ph.D. - desertation (Unpublished), Ahmedabad, 1983, pp. 210-211.
51. D.P. Agrawal, *Ibid.*, pp. 111-112.
52. B.S. Kotlia, 'Quaternary Rodent Fauna of the Kashmir Valley, Northwestern India, Systematics, Biochrohology and Palaeoecology, *Jour. Palaeontological Society of India*, 1985, Vol. 30, pp. 81-91.



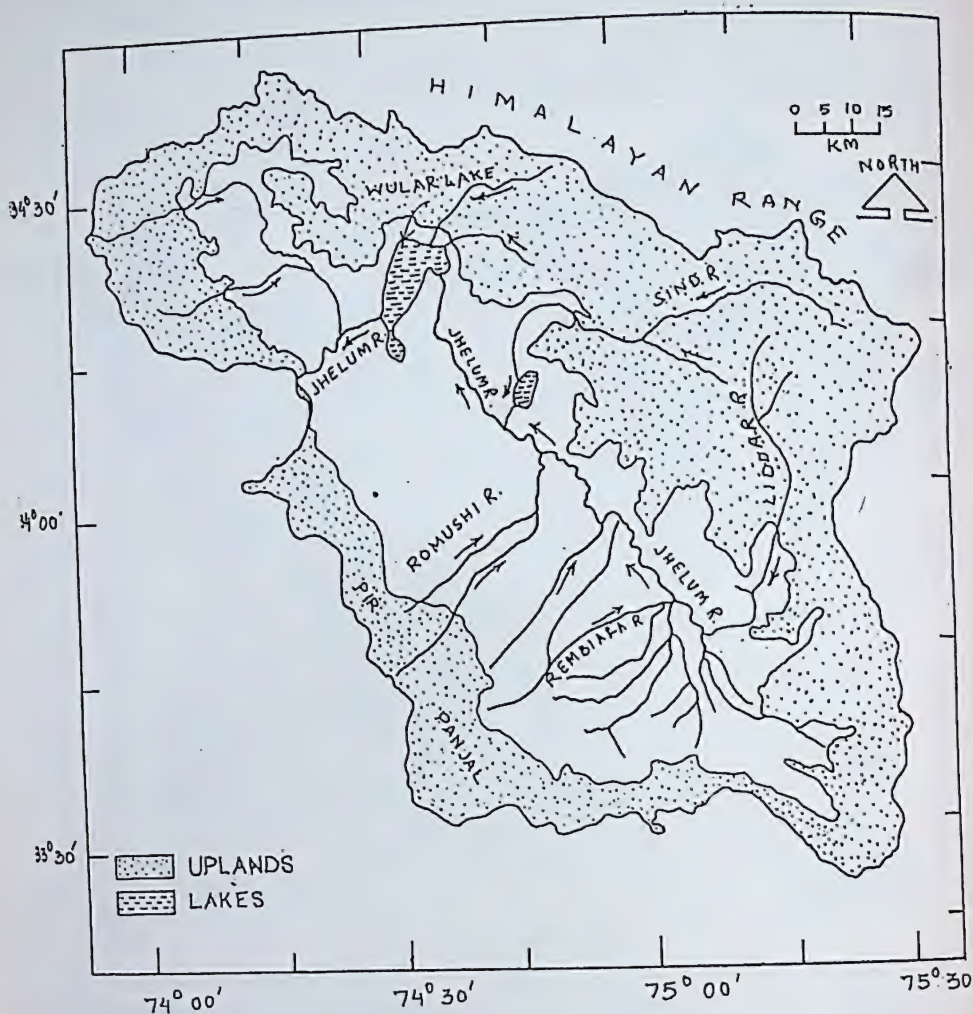
1. Glaciers and deposition of moraines.



2. Kashmir valley floor under primaeval lake flanked by steep ranges of Pir Panjal and the Himalayas.



3. End of Lacustrine deposits on the Pir Panjal side due to its uplifting and shifting of the lake towards the northern (Himalayan) side. The Pir Panjal flank on the southern side became exposed for deposition of loess earlier.



4. Final drainage of the primaeval lake and emergence of river Jhelum and its tributaries around 85 KYr. Now a stable surface for deposition of loess became available on Himalayan side also.

5. Karewa vertebrates (fossils) investigated in the Kashmir Palaeoclimatic project:-

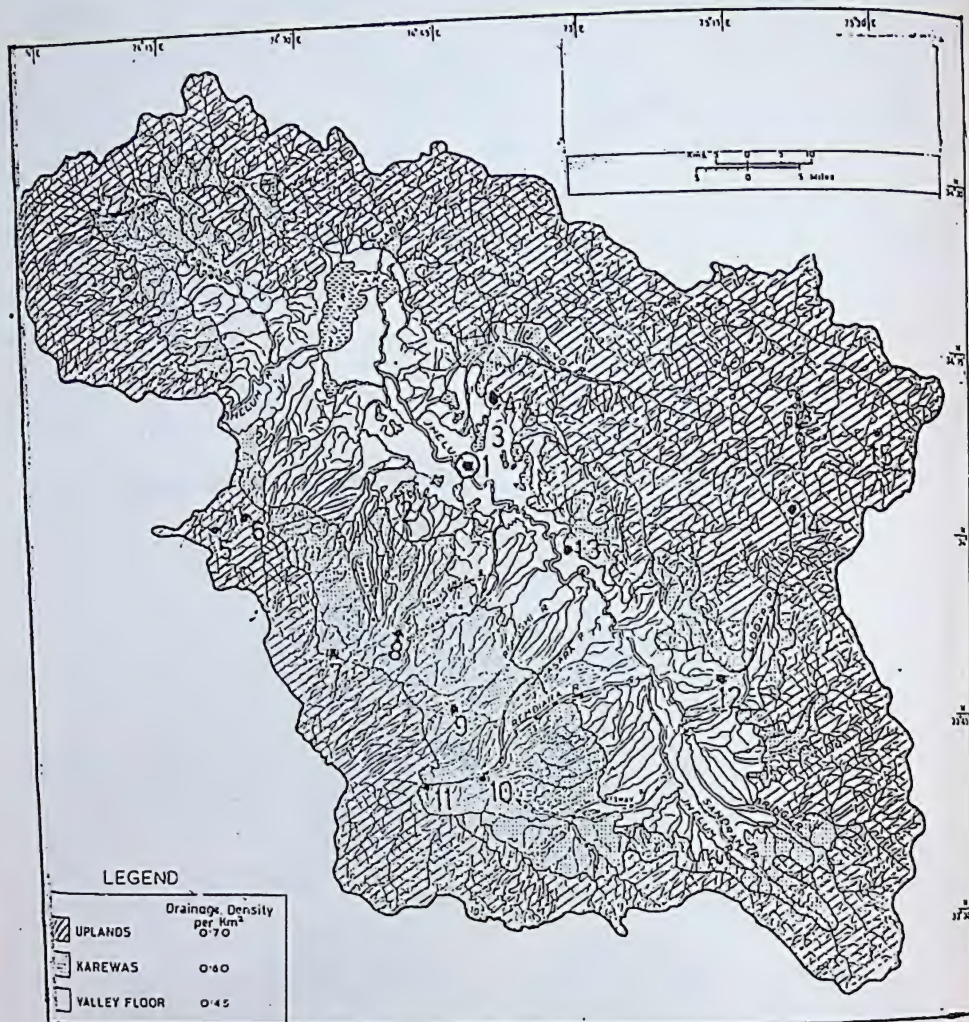


A. Fossiliferous sites yielding diversity of mega and micro-mammalian fauna fossils.

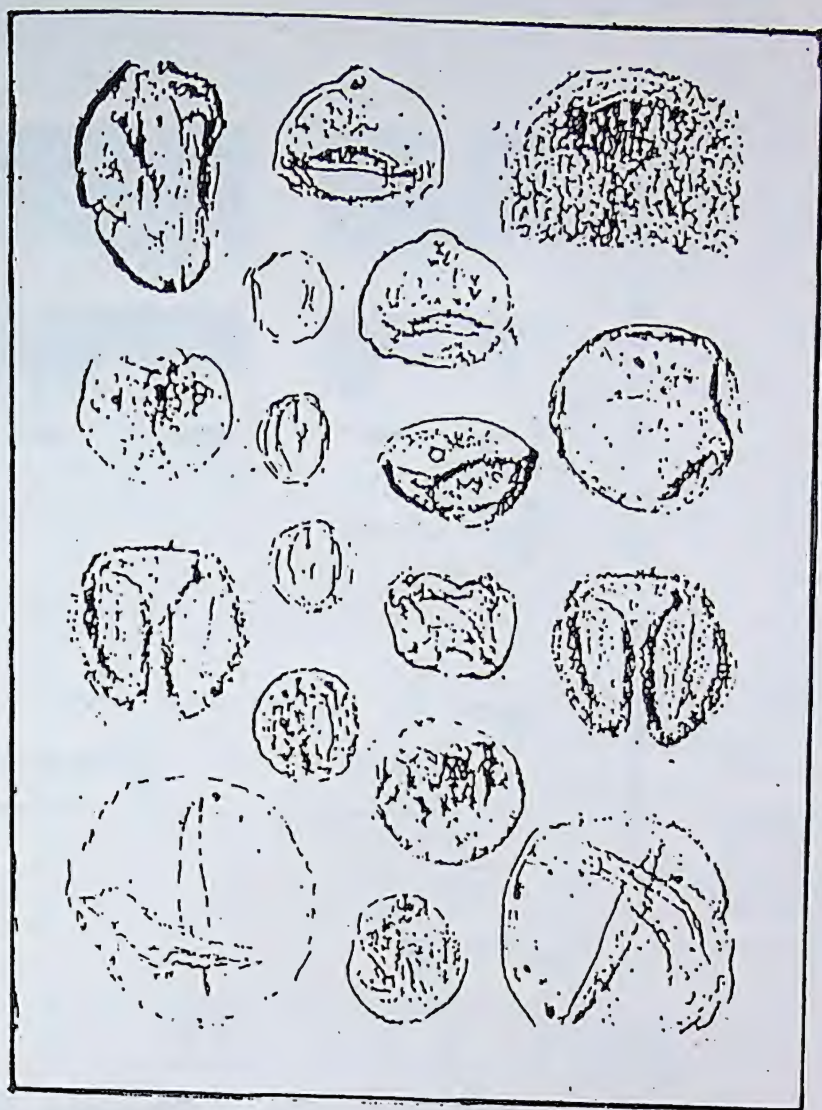


B. Some types of fossil remains from the Karewas.

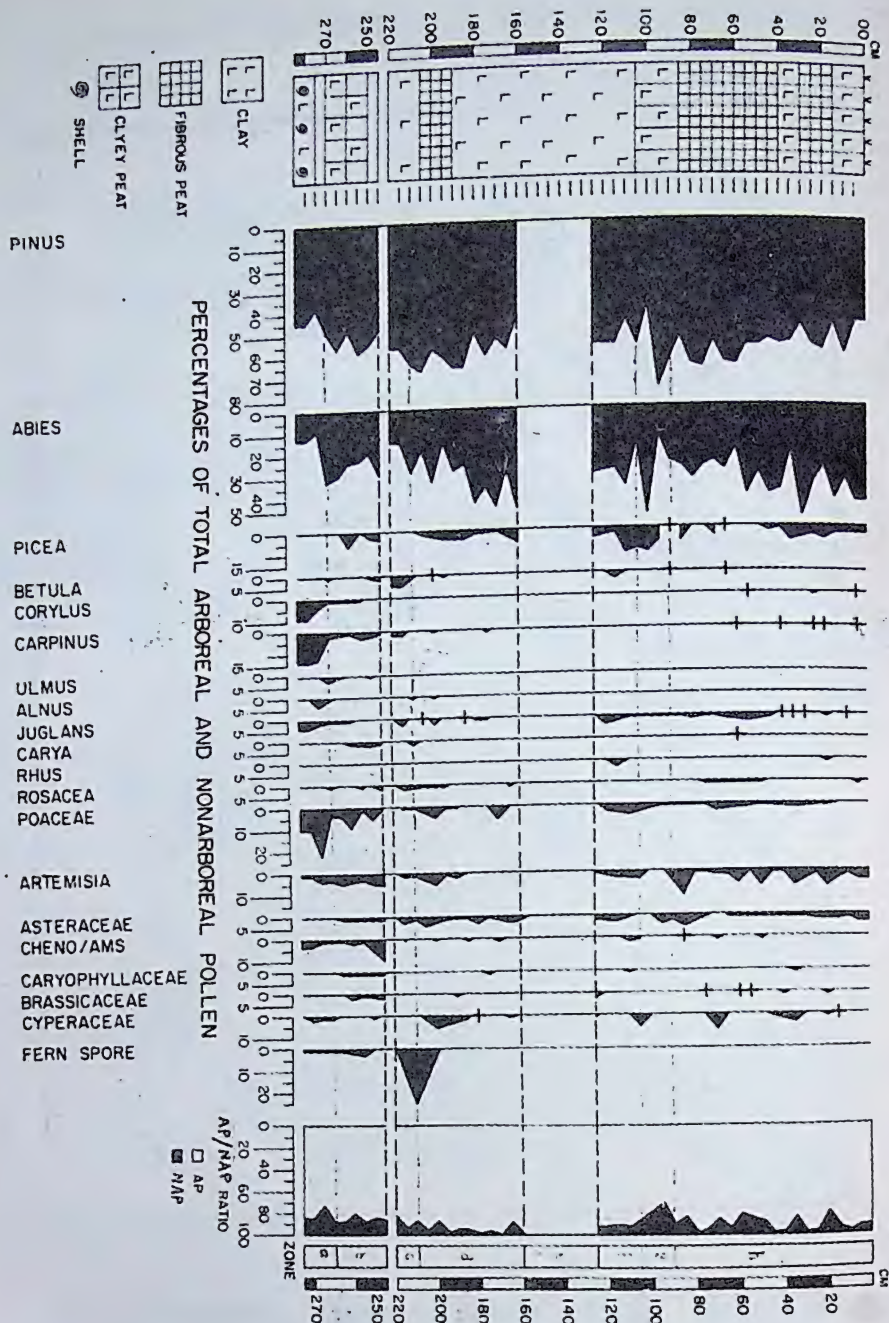
6. Number of sites (earmarked in the map) for pollen analysis.



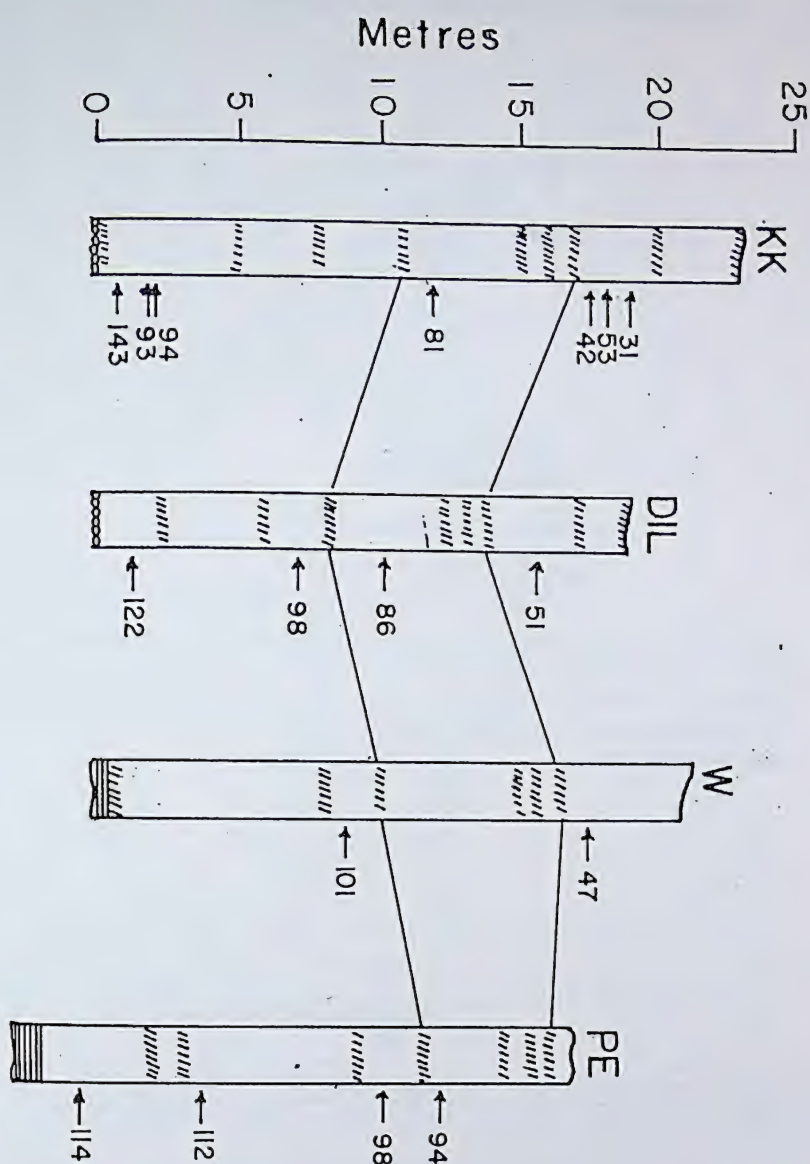
1. Srinagar. 2. Hokarsar. 3. Anchar. 4. Burzahom. 5. Butapathri. 6. Gulmarg. 7. Sukhnag. 8. Raithan. 9. Romushi. 10. Hirrpur. 11. Dubjan. 12. Saki Paparian. 13. Olchibagh. 14. Pahalgam. 15. Chandanwari.



7. Pollen types from Hirpur-III, south-west of Srinagar indicating vegetation-pattern requiring warm temperature and wet climate.

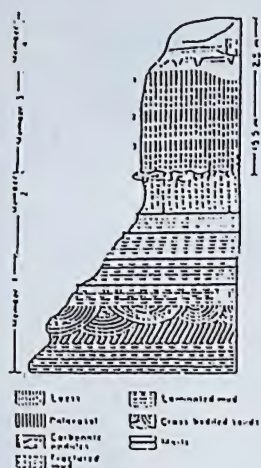


8. Pollen profile from Buthpathri, north-west of Srinagar and 12 kms from Gulmarg. Pollen diagrams have been drawn on the basis of a relative frequency of arboreal and non-arboreal elements. The thermophilous plants have thrived at the cost of cold-loving plants at 17,000 B.P.

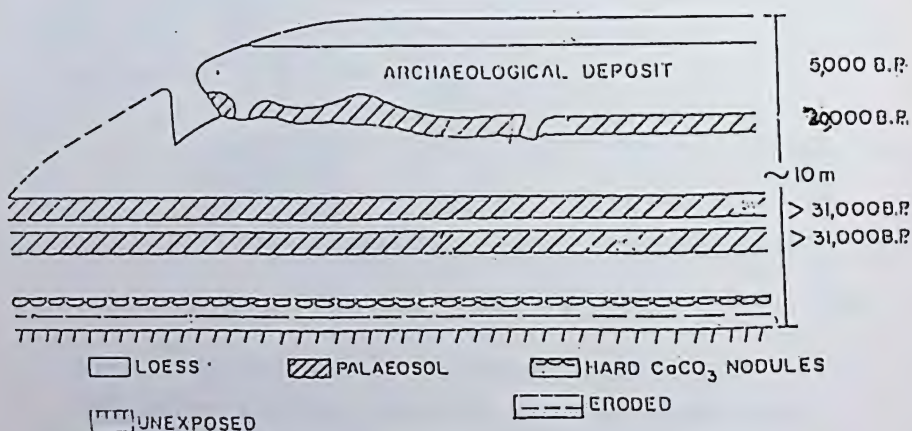


9. A comparative correlation of stratigraphy of some representative sections as marked in the diagram. The hatched bands represent palaeosols indicating subtle climatic changes. The Arabic numerals indicate Thermoluminescence (TL) dates.

10. Schematic sections of exposed Karewa, palaeosol, loess and archaeological deposits from Neolithic Settlement of Burzahom, Srinagar:-



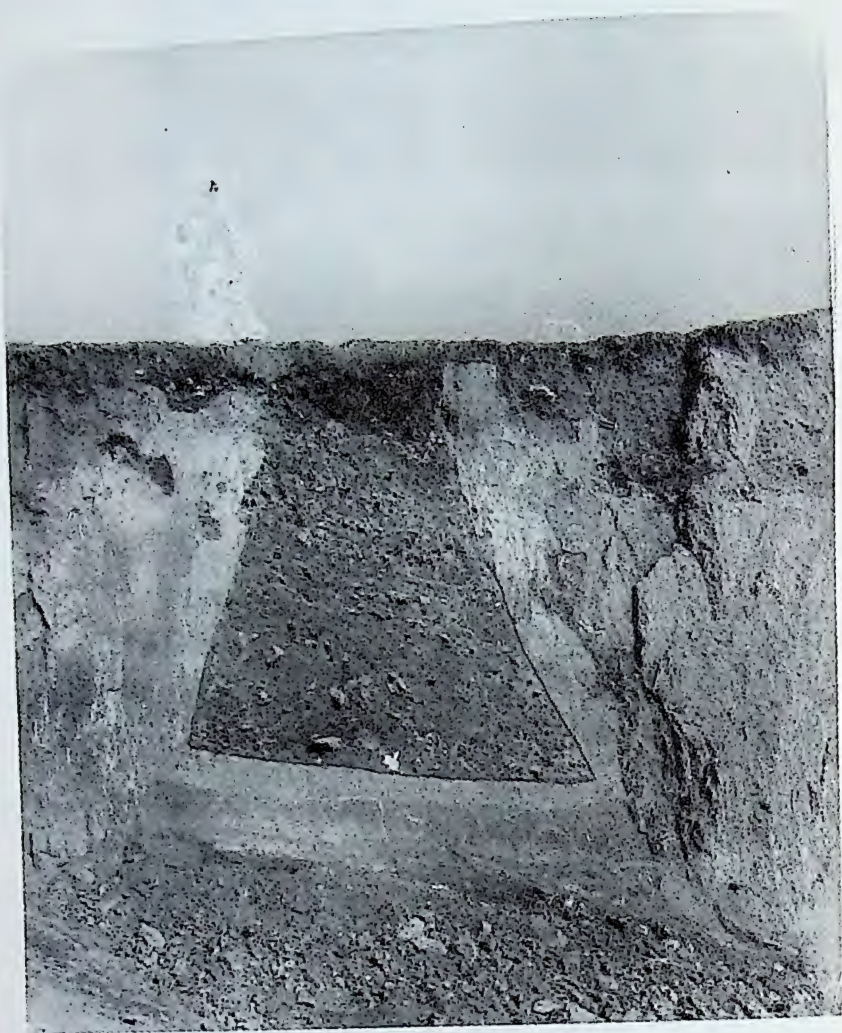
A. Burzahom Section (Schematic) : Member I indicated by laminated muds, cross beaded sands and marls represents lacustrine and fluvial conditions. Member 2 represents swampy conditions after drainage of lake. Member 3 is the loessic deposit intercalated with three Palaeosols (marked 1,2,3). Member 4 represents archaeological deposit.



B. With Palaeosols marked with dates.



11. Reconstruction of Palaeolithic Settlement (20,000 B.P.)



14. A representative section of a Dwelling Pit (Neolithic settlement) with a thin line of red ochre floor at its bottom from Burzahom excavations.



15. Another type of Neolithic settlement, Pit Chamber with drains, hearths, postholes, and sealing deposits from Burzahom excavations.



18. A type of secondary burial exposed at Burzahom at a depth of 1125 meters before surface The bones treated with red ochre and skull with Trepanning marks.



19. Fractional burial with the skulls, limb, rib and other fragmentary bones of wild animals, dogs, antlers and other pet animals, from Burzahom.

20. Some specimens of stone tools from the Neolithic settlement of Burzahom.



MACE HEADS



POUNDER



HARVESTER



KNITTING TOOL

BALL



CHISEL



SCRAPER



AXES



21. A few varieties of bone tools from Neolithic settlement of Burzahom.



SCRAPERS



DAGGER



NEEDLES



POINTS



AWL



ARROWHEAD



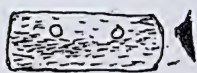
HAIR PIN



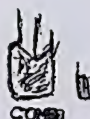
DOUBLE EDGED POINT



HARPOON

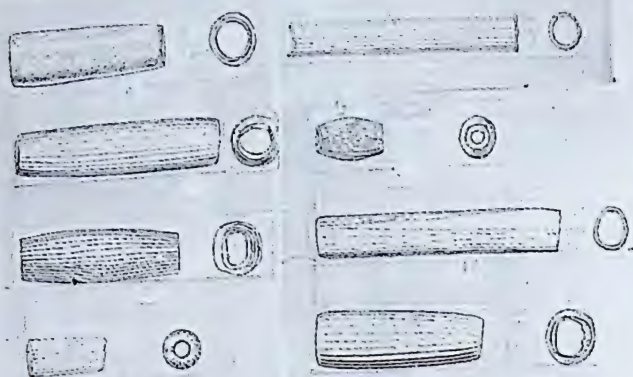


HARVESTER



COMB

22. Personal items of decoration from excavations in bones, A. Beads; B. Pendants.



23. Some prominent types of bone tools and their functional value.

Stone



AXE FOR CUTTING AND SHAPING.



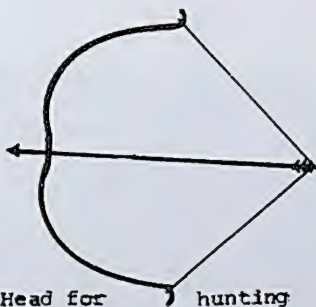
ADZE FOR SHAPING.



CHISEL FOR CUTTING



SPEAR FOR HUNTING

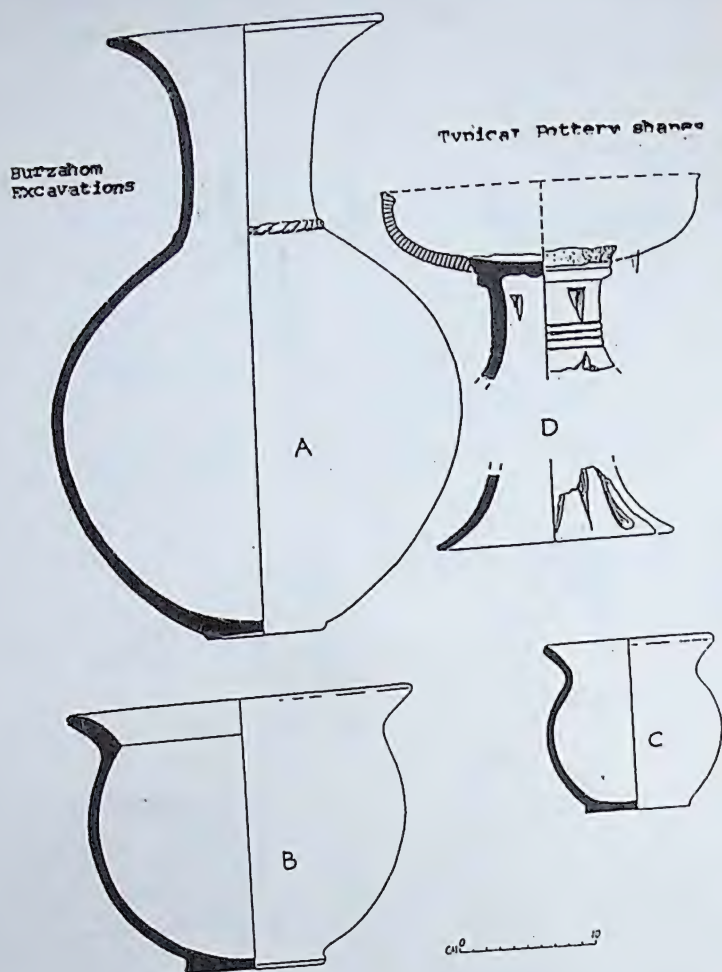


Arrow Head for hunting

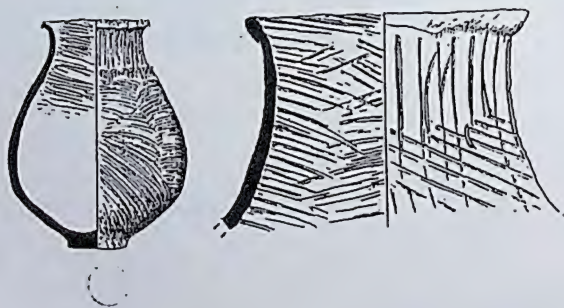


Harpoon for fishing

24. Some typical pottery shapes from Burzahom:-

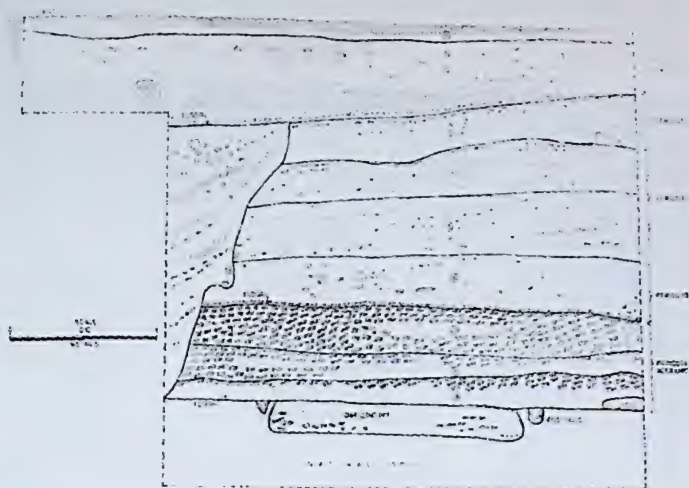


A. Burnished Grey Ware;



B. Fine Grey Ware.

25. Neolithic Settlement, Gufkral Excavations:-



A. Cultural sequence, dwelling pit and the sealing deposits.

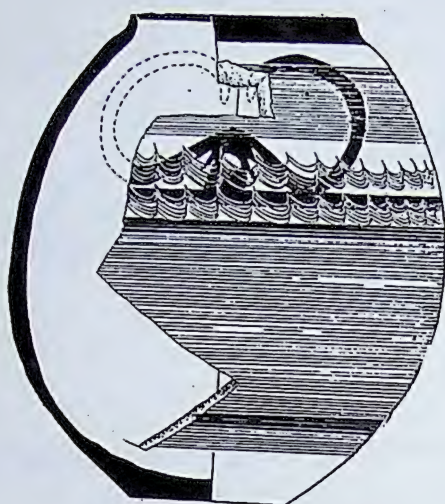


B. Bone tools;



C. Stone tools.

26. Some of the foreign elements found in excavations at Burzahom, Srinagar, Gufkral and Pulwama.



Harappan pot. (BZH.)



Copper Arrow Heads (BZH).



1. Copper Pin (Guf).
2. Flattened coil Headed copper hair pin.(Guf).



Carnelian Agate Beads (Bzh)

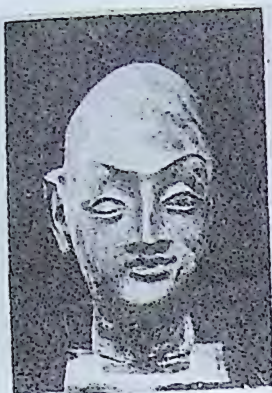


27. Stone structure from 'Megalithic Settlement, Burzahom.

30. Terracotta sculptural heads from Buddhist Settlement, Huvishkapura (modern Ushkur), Baramulla indicating the style of head dresses, ornaments, and garments worn by the people.



Bodhisattva with twisted dressed-up locks and a smiling face.



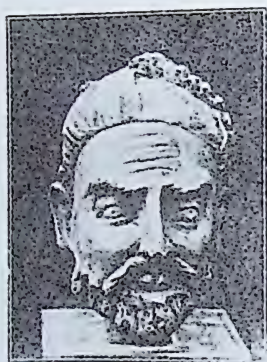
A youthful monk.



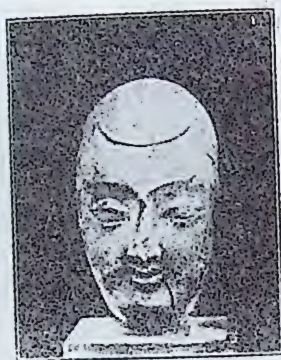
A female lay-devotee.



Bodhisattva with half-closed eyes and in a meditative posture.



A vexed Brahman ascetic



A Contemplative young monk



Bodhisattva with a neatly imbedded floral crown.

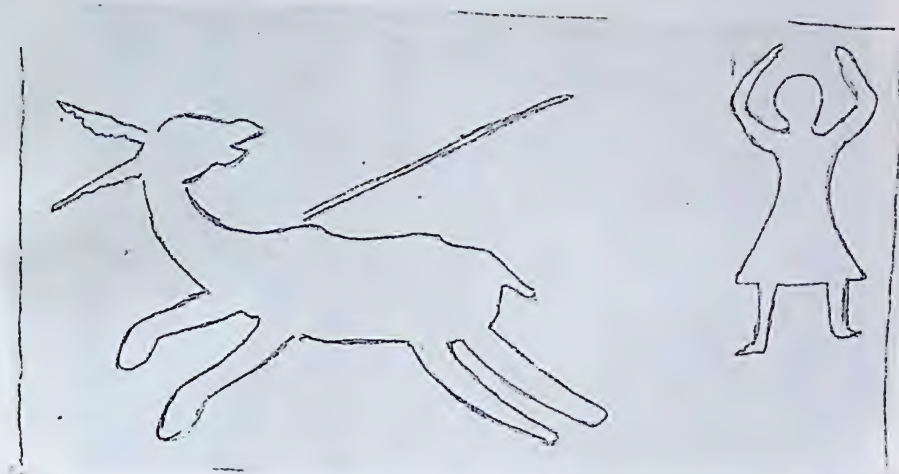


Buddha cross-legged and in a meditative posture.



Buddha with conventional curls on the head and a smiling facial appearance.

31. Early Historical Settlements—Buddhist sites:-



A. A hunter in jovial mood after his arrow has hit his prey from Hoinar, Anantnag-Pahalgam Road, Anantnag.



B. An exposed part of the Diaper-Pebble structure at Harwan, Srinagar.

34. Buddhist Settlement, Harwan. Some terracotta tiles showing:-



A. Living style of the lowest sections of the society, a water-carrier and the carrier of incense burner.

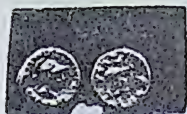


B. A dancer in motion.



C. A horseman riding on the horse with full speed. He has drawn out his bow to shoot. The quiver hangs on the right side of the saddle.

35. Ancient coinage of Kashmir—some specimens from early Historical, Historical and Mediaeval Settlements.



Menander



Kujala Kadphises



Vima Kadphises



Kanishka



Toramana



Huvishka



Vasudeva



Pravarasena



Durlabhavardana



Pratapaditya II



Yasaskara

36. Mediaeval Settlements:



A. Shiva Temple Shankaracharya, Srinagar, showing the beginning of temple art in the valley.



B. Vishnu Temple, Tapar, Baramulla, the first attempt to provide the temple with cellular peristyle on the pattern of Buddhist monasteries of Gandhara. An isolated base pillar of the column is distinct.

37. Mediaeval Settlements from Buddhist site of Pandrethan, Srinagar:-



A. Lower part of the buskined figure of Kushana chief or Kubera. The long boots, flower-garland and a lion at the back are extraordinary features for the type of images in the valley... (Stone, S.P.S. Museum, Srinagar).

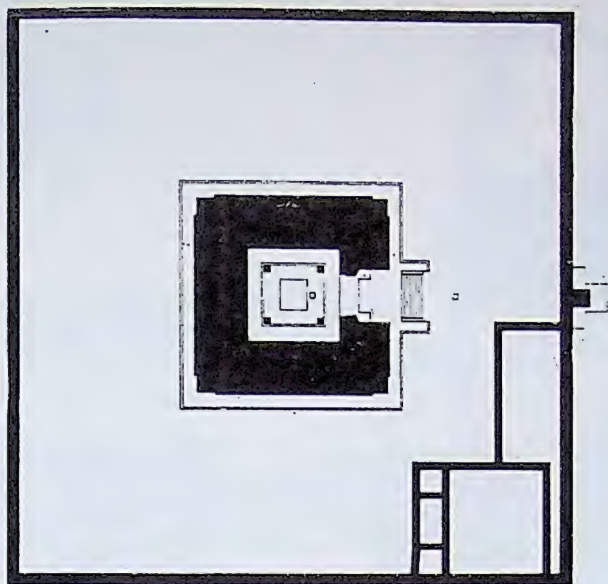


B. Birth of Buddha when queen mother feels the pangs of labour-pain in the Lumbini garden. With her right hand she holds the branch of Ashoka tree and on the left is supported by her sister. The other figures are gods, goddesses or chauri-bearer. (Stone, S.P.S. Museum, Srinagar).

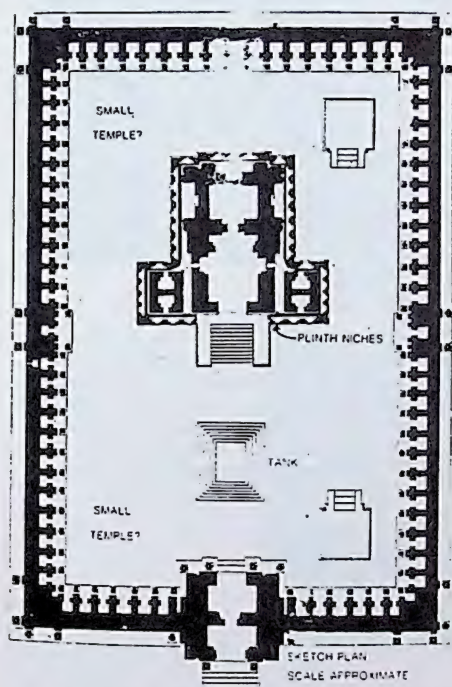


40. Terracotta plaque of a stupa with inscription from ancient Mediaeval Settlement (Buddhist) of Antebawan in Vicharnao near medical institute, Soura, Srinagar (in National Museum, N. Delhi).

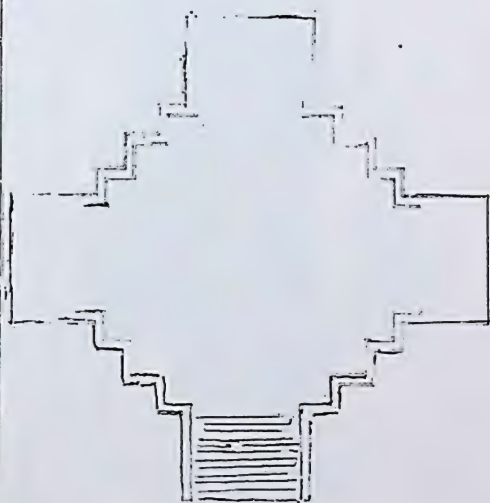
41. Plans of religious edifices—prominent ones, built during the reign of King Lalitaditya:-



A. Chaitya at the capital city of Parihasapura, Baramulla.



B. Martanda temple, Anantnag.



C. Chankuna's stupa at Parihasapura.

42. Some type of metal sculptures from Mediaeval Settlements:-



A. Surya wearing long tunic, boots and cylindrical crown. Identifiable objects are two lotuses held by the god in his two hands. This could be replica of the principal image of King Lalitaditya's famous Martanda temple. (Cleveland/Museum of Art Collection, Cleveland-Gift of Katherine Holden Thayer).



B. Standing figure of Buddha on a raised pedestal with an inscription at the base. He holds the weight of his body by his stiff left leg while the right leg is in the act of motion. His right hand displays the gestures of reassurance while his left hand is shown away from the body so as to hold its balance. Cleveland Museum of Art, Cleveland-John L. Severance Fund).

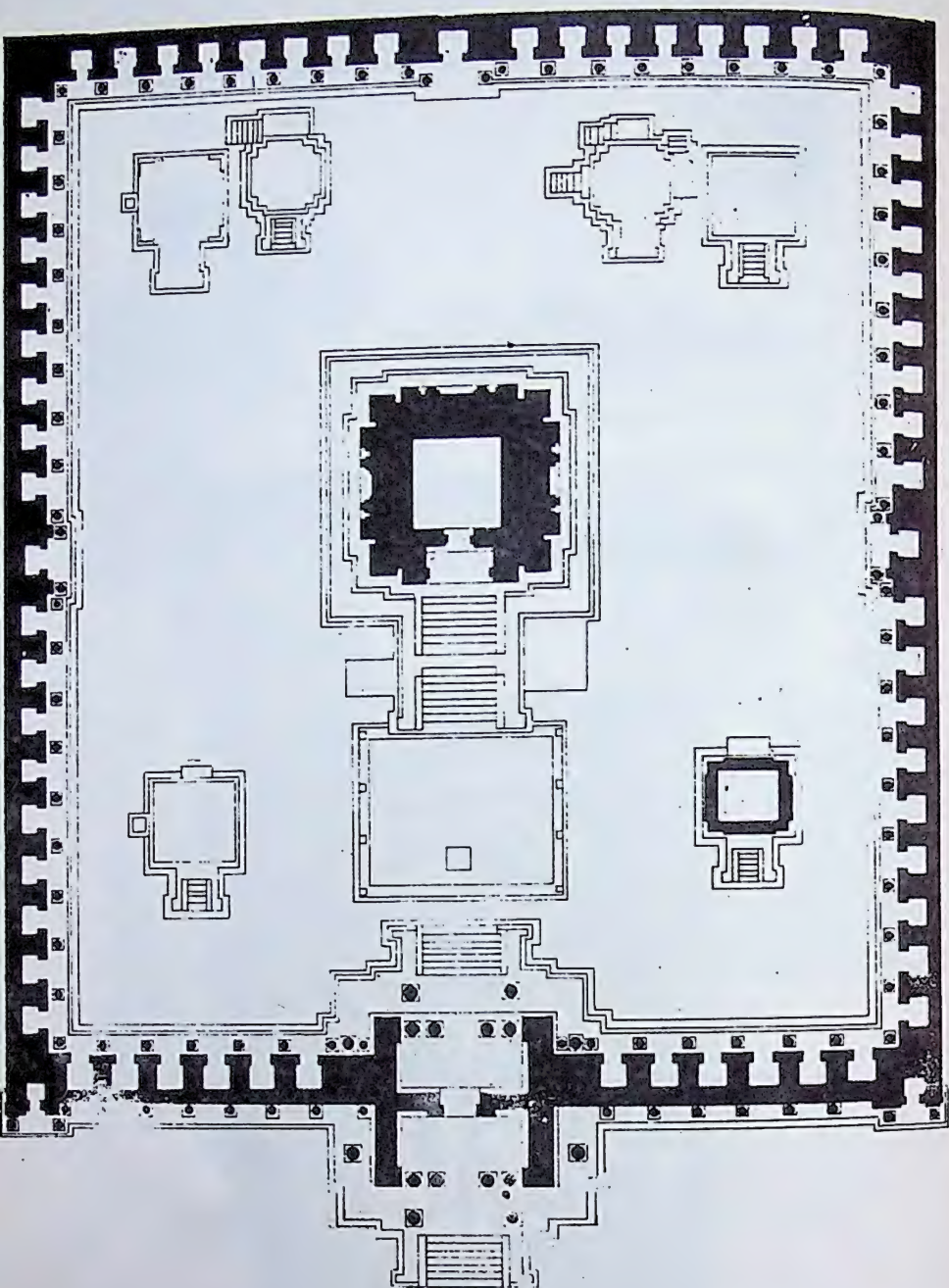
43. Masterpiece Kashmiri temple architecture with sculptural projection:-



A. King Lalitaditya's Martanda temple.



B. An image of Surya riding on a horse accompanied by his companions.



44. Plan of Avantisvami temple, Avantipura.

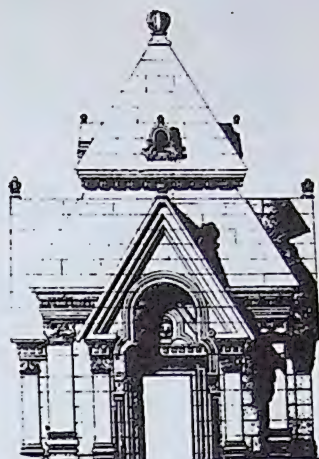
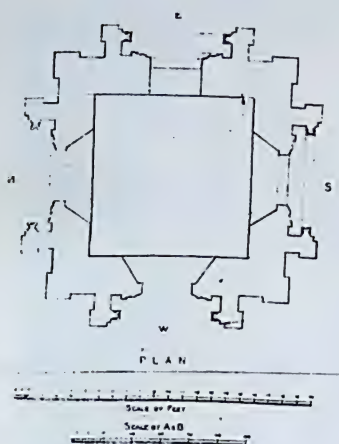


45. A part of the temple architecture of Avantisvami temple at Avantipura with a image of Kamadeva, with his queens carved in one of the panels.

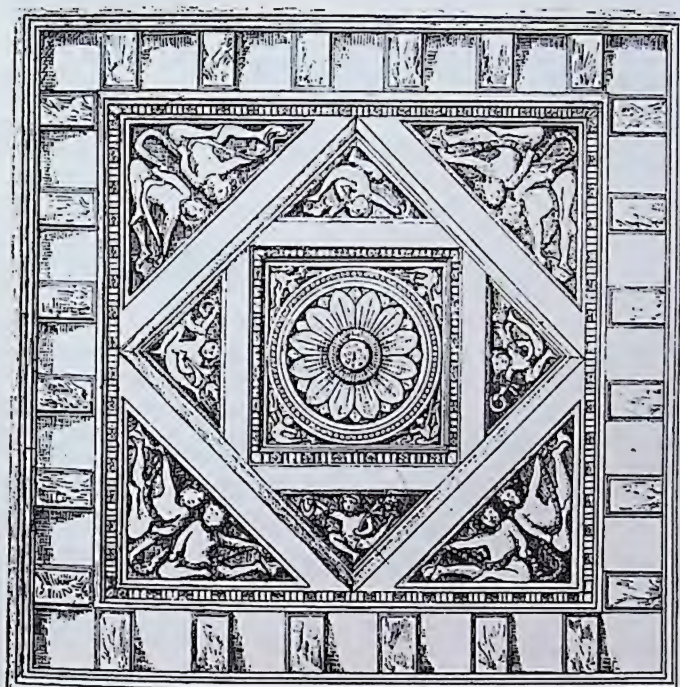


46. A standing image of Caturanaana (four faced) Vishnu on a pedestal in a slightly *tribhanga* posture with his two hands resting on his personified attributes, Gadadevi and Chakrapurusha. Between the god's feet earth goddess emerges gazing at the lord. The four heads of the god are: a calm and serene head of human being in the front, of a lion and a boar on the sides and a ferocious face of Kapila at the back. Elaborately jewelled crown and elaborately dressed. Excellent specimen of artistic style in Karkota and Utpala periods (1200-1100 B.P.). The image is from Mediaeval Settlement of Avantivami temple and is at present in Gadadar temple, Old Secretariat.

47. *Temple, plan and elevation of Shiva's temple at Pandrethan, Srinagar and its exquisitely carved ceiling.*



ELEVATION



48. Temple architecture from Mediaeval Settlement of Payar, Pulwama (1000 B.P.), a well preserved temple with all the components intact.



Payar (Pulwama).... Shiva temple with its sanctum open on all sides, Devoid of any cellular peristyle, figurative motifs have been carved with found skill on various components of the temple itself, built of 10 stones only. Recessed niches surmounted by pedimented trefoils on the entrance lintels carry different representations of Shiva.

Pre-Historic Period

Sources from Literary Accounts

Kashmir is fortunate in having a continuous series of written records. Despite its isolation, it has maintained a large variety of historical treatises, topographical accounts, description and pilgrimage tours of sacred places which, among other things, provide a mine of information regarding the land and the people. Even the survival of genuine popular traditions have their literary sources.

The *Rajtarangini* written in 1149-50 A.D. is the only work in the Indian literature which attracts the readers mainly due to its character as a historical record. Besides the *Nilamatapurana*, Kalhana, the author of the chronicle had consulted the works of earlier authors also. Out of all these texts, only the *Nilamatapurana* is the oldest surviving literary work of Kashmir. According to these, there were many tribal people among whom Nagas and Pishachas are described at length.

Nagas and Pishachas were the progeny of sage Kashyapa, the creator of the valley of Kashmir. Both these tribes had close association with people living in the neighbouring countries. They used to go to these regions periodically and return to the valley whenever the passes connecting the valley with these regions were safe for the travel. This resulted in the cultural amalgamation from times immemorial.

It was claimed that Nagas were the original settlers of Kashmir. By the minute study of the description duly supported by the archaeological findings, it is now conceived that the other tribe, i.e. Pishachas inhabited the valley soon after the desiccation of the lake water. Nagas were brought into the valley to fight the contemptuous Pishachas who had occupied a sizeable portion of the valley over the mountains¹. It is quite likely that the valley floor was still swampy and Pishachas had to take up their temporary settlements over the mountains or on the top of the exposed Karewas of Pir Panjal flank which had first exposure through Toshamaidan route which connects the valley with Poonch district of Jammu and further with the plains and the northern regions. It is recorded in the *Nilamataapurana* that the people living probably on the mountains, were terrified by the violent rush of water from the lake which at that period covered the valley². In that case, only Pishachas could have been the original settlers with whom new entrants, i.e. the Nagas, always remained hostile. The formers were nomads whose original home is said to have been vast desert probably in Central Asia. Central Asia as a whole is equated with a vast expanse of desert and steppe. The migratory people particularly depended to a large extent for their subsistence on the vast expanse of desert and steppe. The more characteristic way of life in Central Asia itself was that of nomadic tribes who used to move beyond their original home accompanied apparently by their untiring flock of cattle³. Kashmir was a fertile ground where there was sufficient water and grazing grounds for their flock and herds which were their pre-requisites. Loss of the animals meant starvation to them and this factor firmly restricted their movement to areas with insufficient water and grazing. The early man had enough land, fertile ground and a charming landscape here. Hence from

earliest times, waves of Central Asian tribal people migrated and settled here. The mighty Himalayas could not divide and isolate the people of this land from the countries beyond. In addition to indigenous sources, the life style of these nomadic people, is mentioned in Indian literature also.

Rigveda mentions Pishachas as evil-spirited beings⁴.

According to Atharva Veda, they have been described as roamers of forests who ran from village to village⁵. The local people prayed for strength to drive them out of the valley. These ferocious men have been bracketed with Rakhshasas, Asuras against whom both gods and men have fought.

Other Puranas describe them as evil-minded human beings. The Vayu Purana in particular mentions them as men addicted to evil habits, drinking blood, homeless, clad in skins and possessed of long skins⁶. The characteristic features of Pishachas are that they were savage and nomadic people living in hilly regions, dense forests and without any houses of a permanent nature. They wrapped their bodies with animal skins and were flesh eaters. They enjoyed an environment in which warmth-loving animals and plants could live. These were primitive people who lived in small isolated groups in the areas most favourable for settlement. They could, therefore, be the pre-neolithic people whose material equipment in some of the explored pockets in the valley have been found and whose survivals are now known in the recently excavated sites of Neolithic period (Aceramic levels).

In a striking contrast, Nagas were peaceful and civilized people. They are designated as tutelary deities who are supposed to reside in springs and lakes in the form of snakes. In all the mythological accounts, the snakes represent the venomous aspect of their character signifying destruction. They also take the form of human

beings and at times may take the form of clouds and hail storms. Almost all the springs, lakes and ponds in the valley are held sacred to one of the legendary Nagas. As a token of respect to the lords of these lakes or springs, people were forbidden to take out fish which normally are found in these in abundance. That tradition still persists.

There is a general consensus among the scholars that Nagas were the serpent worshippers. Some are of the opinion that they belonged to the prehistoric times⁷. In Rigveda, it is mentioned that the term *vrta* represents the serpent worshipping people (R.V.Vi. 29.6). The religion of Buddha was introduced in the valley after it was rescued from Nagas. Nagas were serpent worshipping people and it is also supported from a faience sealing obtained from Mohenjadarо excavations. In it, cobra appears to be distinct from the kneeling suppliant in front of it who is meant to be a Naga⁸. Numerous figures of snake goddess in terracotta have been found in excavations at Gumla and other sites in N.W.F. Province in Pakistan, at least of before 2500 B.C.⁹.

Nagas were serpent worshipping people of ancient India and that they were popular in almost all the parts of the country¹⁰. Many localities were named after Nagas. In early historical period and later Kushanas, there were powerful Naga dynasties. Nagas, it is said, were responsible for driving out the Kushanas from India¹¹. The famous ruling family of Karkotas (7th-8th century A.D) was of Naga tribe. Its world-renowned and illustrious son was King Lalitaditya-Muktapidi (ca. 725-56 A.D.). His repeated invasions beyond the frontiers of Kashmir are notable and important for the history of India as a whole. As a mark of respect to these noble tribes, temples were erected in springs supposed to be their abodes during the medieval period also in Kashmir¹².

Of course, it is difficult to identify Nagas and Pishachas on the basis of these legendary traditions but recent archaeological findings present a dependable evidence in this behalf. It is, however, a hard fact that both these tribes have played a great historical role in the ancient past of the land. There are several facts and reasonable inferences which bear it out that the Pishachas were long before Nagas (in know) of the climatic problems of the valley and the formidable terrains leading to it. Before the advent of winter they would leave their homes in the sandy deserts of Central Asia and come to Kashmir in order to avoid the excessive cold of Pamirs. In course of time, during their absence, the land was occupied by the contemporary tribes of Nagas in summer months so as to save themselves from the scorching heat of the plains. In the beginning, Pishachas forcibly drove them out. Seeing their rude behaviour and inhuman nature, their crude life style, Nagas hesitated to settle with them on their own. They were, however, encouraged by the fresh wave of human beings from the warmer countries. Nagas and the fresh arrivals could then jointly face the wrath of Pishachas. Subsequently, an amicable settlement was reached. According to it, the country was inhabited for six months of the year by human beings, i.e. Nagas and the fresh arrivals and for another six months by the eaters of raw flesh, i.e. Pishachas. In course of time, the new arrivals lived permanently in the valley after they pleased Pishachas with gifts¹³.

While the valley was passing through the Neolithic phase, the arrival of foreign element demonstrated by cultural equipment, unknown till then to the people of the land, assumes significance in the light of these literary and legendary sources. There was amalgamation of two separate cultures, local hunting tribes and the neighbouring advanced peoples belonging to pre-Harappan civilization. Like Pishachas and Nagas, these two cultural groups are

found living in close proximity to each other and how they have influenced each other by their style of living, provides a fascinating ground for pre-historic research in the valley.

These literary or documentary sources, traditions or rituals still in use have provided useful data for geology, palaeontology, climatology and archaeology, which all put together enable us to understand the pattern of settlements right from the advent of early man in the valley.

Palaeolithic Period

Archaeological research in the valley received a new boost after independence. Many sites were discovered, potential ones excavated and many inter-disciplinary projects undertaken. A chronological framework for Kashmir's history from early times was thus built up on scientific lines.

Archaeological data coupled with the natural environment brings forth a reliable source material for understanding the settlement pattern of a region. Both are interrelated with the location, natural resources, density and distribution of population, and subsistence or the economy of the people¹⁴.

The settlements and settlement patterns especially in pre-historic period are not and never have been fixed and are liable to change. This change may sometimes be swift and sometimes it may be slow.

The climatic oscillations during a glaciation or the interglacial ice-retreat caused fundamental changes in flora and fauna and in the total environment presented to primitive man¹⁵.

There is no record to indicate that the early man in the Palaeolithic times had permanent settlements. He had to be constantly on the move in search of food or game¹⁶.

The recent advances in archaeology have shown that the cultural contacts between India and China existed since the very dawn of human existence¹⁷. The people travelled over the passes on the Himalayas as during Palaeolithic or Neolithic times, these passes were probably not so high as to form the effective barriers¹⁸. In Kashmir, especially in Neolithic period (5,000-3,000 B.P.), there are clear indications of close cultural contacts with China¹⁹.

In Kashmir, climatology is an essential source for tracing the various stages of man's evolution.

Variation in climate from very hot to cold and back again determined the behaviour of animal and vegetable species and also the life and settlement pattern of the primitive man. In some of the inhospitable stretches on the mountains, the physical characteristics and the way of life of the early man remained primitive even if there was rapid expansion of an advanced type of civilization outside the valley. The primitive man in the valley had to exert himself amid extremes of heat and cold, geological isolation, endless chains of mountains and hills. There were occasions when man could not keep pace with the changed environment as a result of which cultural change came to a halt. This has obviously affected the man's stay in the valley, his movements and the pattern of his settlement.

Field work in the region has revealed that infiltration of population took place during prehistoric times through the mountain passes suitable for the movement of prehistoric man and his material. However, each wave of immigrants had to face natural calamities like untimely snowfall, closure of passes and scarcity of food mainly due to loss of his cattle. He had, therefore, only three alternatives before him: absorption, isolation or extinction. During earlier stages of man's evolution, only the last course was open to him.

No Palaeolithic site stands excavated so far. There have been exposures of Palaeolithic tools in the valley in the past suggestive of his temporary settlements. The availability of grazing land, natural resources, and raw material for the tools provided a suitable place for the primitive man to visit the valley. The forests in post-Pleistocene times were undisturbed in which arboreal mammals roamed. There was a sufficient number of pointed stone tools which could have been utilised by the early man for killing his game. The wood, too, was abundant. The Palaeolithic man could have used wooden sticks for digging of edible roots or small rodents, or for collecting wild tree fruits and nuts.

Tools of the Palaeolithic Period

Unstratified tools found in the valley have been reported earlier by explorers. Pending detailed exploration and excavations, the surface collections are of real importance even if their dates are not known. Their technological or functional niceties help in the reconstruction of the settlement pattern or the subsistence of the early people. A boulder found by Grinlinton looked like a 'hand-made' tool²⁰. Some stray tools of flakes, and pebble tools were reported in the valley from the lowest terrace of Pampur in Srinagar District and at Kargil. A single patinated tool found from Kargil cannot prove the existence of Palaeolithic man having lived in the valley. It was suggested that the tool must have been carried by a prehistoric man in subrecent times or by the people who settled at the former site of Pampur. Here one of the tool was unmistakably regarded as humanly worked flake implement²¹. It was claimed to belong to Levallois industry of Europe which stretched there from lower to middle Palaeolithic times. In the same context, flake tools located at Chitta, south-west of Rawalpindi in the Potwar Plateau were of special interest. Kargil lies just beyond the main Himalayan range on the ancient trade route over Zojila pass connecting India

with Central Asia, Tibet and China²². Fossil remains of animals (antelope and Bos) represented by proboscidean tusk limb bones were found on the pathway leading from village Rustum up to the slope of the hill on which the shrine of *Baba Refiuddin*, south-west of Magam, district Badgam, lies. One of the limb bone was recognised as a femur and bore marks of artificial cutting with a blunt knife. This was the evidence of kitchen refuse and as such was a sure indication of a prehistoric man's existence in the area²³. The wide range of such tools were found in the adjacent regions of Haro, Indus and Soan Valleys of potwar plateau in Tawi, Ravi and Chinab Valleys of Jammu region²⁴. The lesser number of such tools in Kashmir was attributed to the upthrusting of the Pir Panjal as a result of which the valley must have been a dangerous ground for the prehistoric hunter of the old Stone Age. He could have preferred lower grasslands to the alpine heights. It was also stressed that he did not discover it till the end of the Ice Age. Only when the valley was freed from the ice and snow, the Palaeolithic man could not till then dare to come over here²⁵. But this was not so.

In the year 1969-71, an interesting discovery of early Palaeolithic implements was reported from Liddar Valley of Kashmir. The tools were represented by massive flakes ascribable to first interglacial period or during the second glacial. It was claimed that the climate was congenial for man's habitation then. This discovery initiated renewed interest in the area and known specialists in the field reported again a fairly good number of early Palaeolithic tools from various sections at Pahalgam. This collection included both unifacial and bifacial types represented by choppers, scrapers and pointed tools²⁶. These were reported to be of the same category as were found in Banganga-Beas of Kangra valley²⁷ and also in Jammu region.

Jammu region being nearer to Kashmir, has yielded pre-Sohan, early Sohan and pebble tools of late Sohan industry. Pre-Sohan tools were found at Kurro, Pinyani and Tarra, Lakhanpur (Dist. Kathua), early pebble tools from Mah and Jagatpur of the same area, Kishanpur Nagrota (Dist. Udhampur), Sutah (Tehsil Samba, Dist. Jammu)²⁸, Nagrota (Dist. Jammu), Kuta, Dyalachak, Jandore (Dist. Kathua)²⁹ and lastly chopping tools from Chakpalwal (Dist. Jammu)³⁰. Hence, there is definite evidence of continuous development of the Sohan Culture in Jammu province as well.

The experts of the KPCP after their detailed investigation (1980-90), reported that the last deglaciation took place in the valley earlier than supposed globally. They claimed that the human settlement thrived here during optimum climatic conditions. Some dependable sites belonging to the upper Palaeolithic (20,000-18,000 B.P.) period were recognized.

On the Pir Panjal side, such a Palaeolithic site was spotted for the first time. The tools comprised of choppers and some massive discoids or scrapers. The artefacts were discovered on the top terrace of the river Rembiara, at Balapura, tehsil Shopian, district Pulwama³¹. A well worked out chopper with clear cut flake scars was also picked up from Sukhnag again lying on the east side of Pir Panjal Range on direct path between Srinagar and Poonch³². The most interesting collection comprised of over 100 artefacts from Sombur, Dist. Pulwama. The tools bear upper Palaeolithic tradition and indicate clear picture of pre-Neolithic techniques. The site is already famous for the bone bed. It is from here that fossil remains of fish, bird, egg shell fragments, lizards and *elephas hysudricus* have been found. Earlier explorers had found waste flakes also but the presence of pottery along with these tools could not bracket these earlier than Neolithic period.

The present collection of tools are now represented by burins, points and borers. These were recovered from water-torn openings and the excavated loessic surfaces. Stratigraphically, this industry underlies the Neolithic horizon which generally appears on the top of loessic deposits. Besides, unpolished axes, pounders and flakes have also been recovered in similar situations from Kulla Dour, Huin, Bhat Chak (Baramulla). The surfaces of these sites are littered with such of the stone tools which are made on flakes and cores. Backed knives, elongated parallel-sided double scrapers and waisted type of tools constitute the Aceramic industry here. Unlike Aceramic levels at the excavated sites in the valley, the polished tools here have a rare incidence. These lithic tools were noticed for the first time in the valley and their cultural horizons ascertained. At Taparibala (District Baramulla) and at Hab Shah Saheb, Tsodur (District Badgam), and even at Balapura, Shopian, (District Pulwama), huge chopper-like discoidal cores, borers, flake knives and scrapers were found. This evidently points out that the Upper-Palaeolithic man came over here but due to swift change in climate could not carry on to live in the valley for a longer time. It is only his successors in the Neolithic times occupied these sites at 5,000 B.P. It is suggestive of a next stage of climatic amelioration. Even the Neolithic culture shows signs of evolution, spatial differentiation and technological affinities with the preceding stone Age cultures. Interestingly, the investigation has shown that highly developed Neolithic industry in the valley did not appear abruptly as claimed so far³³

Other Parallels

Nose-shaped tools, celts, ring stones found from Balapura, Kuladur, Nilnag and Raithan on Pir Panjal side look like the tools found in Australia dated to 22,000 B.P. In

Kashmir, there is a significant increase of a broad-leaved elements at circa 20,000 B.P., when the period is marked by climatic amelioration and shows enlargement of settlements. Accordingly, the pebble tools encountered now in the valley represent Upper Palaeolithic type of industry³⁴. Similar lithic assemblage of Upper Palaeolithic times comes from northern foot hills of the Hindu Kush at Aq. Kupruk II in Afghanistan. A structural piece found at Aq. Kupruk from Upper Palaeolithic level is dated round about 20,000 B.P. The tool kits found in non-ceramic and ceramic levels varied little from each other³⁵. In the Pamirs and high mountain site of Osh Khona, lithic assemblage was archaic with dominant pebble tool component, flake and blade tools but no geometric microliths. It was ascribable to late Palaeolithic times. It was an open-air site³⁶. In a Kashmir like environment, such sites in the areas represent summer hunting campus.

The uneven pace of cultural change in the valley could, therefore, be attributed to the climatic variations which the valley witnessed at least up to the times when there was a well-established Neolithic cultural tradition.

Settlement Patterns

The presentation of settlement patterns in the pre-Neolithic period in view of the absence of any excavated site is a complicated problem but it could be reconstructed from the lifestyle of the nomadic people who even at present occupy higher reaches of mountains which are undulating valleys, unquestionably of glacial origin and entirely made up of old moraines known by the local names as *Margs*. These tower mountain scraps are of indescribable grandeur. These are even now surrounded by great forests and lie at an elevation of 7,000 to 9,000 feet above the sea. On such altitudes, birch trees still grow though its growth was fairly good during the post-glacial optimum. Birch bark contains

water-proof components and had a high value for the prehistoric man since he could cover his temporary settlements with it which he usually raised on these *Margs*.

Their settlements in Palaeolithic times were ephemeral camps and were close to nature. The reconstruction of these settlements of the prehistoric man can be had from the present day surviving races which include the Gujars, the Bakarwals and herdsmen who were accompanied by herds of cattle, flocks of sheep and goat ascend these higher reaches of the valley. They even resort to pastoral activities during the period of their stay mostly in summer months. These areas at the same time never constitute their permanent abodes. Their temporary shelter or huts are known as 'Gujjar Kothas'. Ordinarily they would have preferred open-air sites but at times of heavy rains, they might have sometime constructed such temporary shelters covered by leaves or skins of dead or killed animals and birch bark. The birch trees grow on high and elevated forest zones. The *Margs*, found at an elevation of over 9000 feet were cherished spots for these prehistoric people for raising their temporary shelters for themselves and for their flocks. These are beautiful stretches of grassy lands surrounded with great forests. Still higher up, the long stretched lands are more splendid and useful for grazing purposes. It is on these higher areas, that the forests of pines and firs cease and the birch trees appear³⁷. The *Marg*, the modern Kashmiri equivalent, is the direct derivative of Sanskrit *mathika* (*matha*) which indicates small huts of stone and wood usually erected on such high plateaus mainly for purposes of shelter³⁸. Alternatively, huge eratics could have also been used for protection against rain or snow.

The pre-historic man who preceded the Neolithic people in the valley had no idea of permanent abode, clothing, or any knowledge of implements save some crude stone or bone implements. He was unaware of any idea of crop

cultivation and had no belief in any religion. Without laying out any foundation, they would raise a structure by placing stone boulders one over the other upto a height of 3 to 4m on all the four sides with a narrow opening in the front. These must have been erected round the wooden frame work. The rooms had pillars at corners and in the centre each in opposite directions. A series of cross beams were placed all around the structures and empty or open gaps were filled with straw or chips of stones. On the top edges of raised up walls, horizontal and unchiselled logs of the trees were laid for covering these abodes. These were covered by small twigs of trees, forest grass, birch bark or by the skin of the animals. They would then place bigger sized stones on the roof itself lest it may not be thrown away by the violent wind. In short they had small scale settlements. There were *en masse* migrations of these prehistoric men whenever there was intensification of rains, snow, mountain uplifts and other environmental changes which also is corroborated with the records in the literary texts.

Means of Subsistence and Economy

On these highland meadows i.e. *margs*, there were varieties of species of forest vegetation and grasses. Wild fruits also grew in abundance, some survivals of which could still be noticed in Dachigam sanctuary, 21kms. north-east of Srinagar. Alpine pastures and scrubs are found at high altitudinal zones here. The sunshine and moisture are good for their growth in highland meadows. At times, the people would substantiate their food with these natural plants and wild fruits. Their main food was the beast who after being killed was torn to pieces and then eaten raw. Sometimes, they would roast it in a temporary oven raised on stone boulders of medium sizes. Besides, they would cover their bodies with the animal skin but at times they would go

naked. As a protection from wind and rain, they would put the fat of the animals on their bodies. Baskets of grass and even of leather were utilized for gathering wild grass, fruits and the roots as they had no knowledge of manufacture of earthen vessels. The pre-historic man of the period, the ancestor of the Neolithic man, led a simple life by using few types of goods as he was always in preparedness for migration to safer places. Abrupt shifting was governed by the climatic disturbances. His stay at a particular place depended upon abruptness, duration and severity of the disturbance.

The migration has been the main reason for the demographic structure of the pre-historic man. His movements and stay depended on availability of water and food, and climatic fluctuations. In case of water and wood, there was no dearth; but he feared the wrath of nature in the form of rain, snow, violent winds, cloud bursts, floods, etc. These natural, catastrophies resulted in the destruction of not only his temporary settlements but also plant and animal life which were his principal means of subsistence. To some extent, the extinction of animals was his own doings. In absence of any forcible or suitable tool for killing the haunt, he drove them to the lakes where many of them drowned, or pushed them into open fissures or crevices, and thus trampled them to death. Their death was the greatest joy for them as they had to feed themselves on their flesh.

The economy of these primitive people was the simplest form of hunting and gathering with no provision for future needs. He was thus a nomad or a wanderer because he had to hunt for the food. He starved if he did not go for hunt. In place like Kashmir, game and fish, berries and wild fruits or nuts were abundant. He as such migrated into the valley from one place to another for purposes of survival and economic reasons. The mammoth *elephas*

hysudricus in particular whose fossil bones are found even now in abundance, happened to be the contemporary of the palaeolithic man. He did come over here and kept adapting himself to new environments. He was successful because of his adaptive nature. The life's manifestation has remained unchanged over the course of millions of years³⁹.

Mesolithic Period

Around 10,000 B.P., cooler conditions prevailed. This is known from the pollen profiles of bogs which saw dominance of conifers⁴⁰. There were excessive rains resulting in tremendous erosions of the land. Repeated erosions, floods, and droughts left their impression on the land which hindered the growth of vegetation and forced the men to move to sub-Himalayan regions and to Central Asia. It appears that climate was different in Central Asia than that of Kashmir. In Kashmir, during early-Holocane period, climate became too cold as against the semi-arid type in Central Asia. Long duration of 'pluvial phase,' cold and dry periods had their repercussions on the free movement of people, animals and vegetation. The people were compelled to resort to migration. The human activity came to a halt. Obviously there was no demand for implements. The environment and climatic changes have as such played a crucial role in enlargement or shifting of settlements⁴¹.

The flake industry represented by Microliths was reported from Pampur (district Srinagar) and Sombur (district Pulwama). These implements seemed to have been survival of Palaeolithic Sohan tradition. The association of hand-made pottery with the implements at Sombur points out that these might have been washed out from an older strata and as such represent Palaeolithic

cultural horizon⁴². This is now confirmed by the recent discovery of blade and burin industry from Kashmir. Most of these industries do not go beyond circa 20,000 B.P.⁴³.

The non-existence of Mesolithic settlements is not confined to Kashmir only. Kashmir type of cooler atmosphere prevailed to its south in some parts of Punjab and Sohan valley in particular. This area too as such is devoid of any industry belonging to immediate post-Palaeolithic or Mesolithic stage⁴⁴. If, however, the people at all lived there during this period, on the banks of river or rivers in Punjab or in Kashmir, the evidences of their existence or settlements must have been swept away by floods or by adverse climatic conditions⁴⁵. In contrast, the Central Asia with a temperate and mild climate is represented by various stages of Palaeolithic culture followed by Mesolithic culture ascribable to c. 10,000 B.P.⁴⁶.

With all the field work undertaken through multidisciplinary methods, the cultural material is too meagre for constructing or calculating the size and composition of the population and details of settlements before the advent of Neolithic tradition in the valley. As in Kashmir, in Central Asia and China also, loess formation is marked by alternating layers of buried soils or palaeosols. The transition from buried soils to loess and from loess to buried soils was observed to be gradual and that the palaeosols were formed under different climatic conditions in all these regions.

In south Tajikistan, these palaeosol horizons at Palaeolithic sites of Karatau and Lakuti have yielded chopper-chopping pebble tools which have been compared with Sohan pebble tools of India (Davis *et al.* 1980). In Kashmir no such tool or artefact was found embedded in any of the palaeosol but its presence in itself is interesting, as such an alluvial carbonate horizon is formed under sufficiently high and periodic wetting and corresponds to

climatic optimum (Davis *et. al.* 1985). The archaeologists and geologists in the past and now associated with KPCP have come across remains of extinct animals, vegetation and tools of the early man which confirms his presence in the valley at different stages. The adverse climatic upheavals and turbulent currents washed away his temporary camping settlements as a result of which no traces of hearth, charcoal, ash or his physical remains are found. The excavation of *margs*, the high altitudinal meadows or the developed horizon of palaeosol is likely to throw adequate light on the lifestyle or economy of the Neolithic man's predecessor. Interestingly, south Tajikistan is again reported to represent the Neolithic strata encountered at the extensively excavated site of Burzahom (Renov, 1979).

In Kashmir, the Neolithic settlement appeared at c. 5000 B.P. only with mid-Holocene climatic amelioration. The settlements increased dramatically. These were distinguished by animal and plant domestication. The gatherer turned into producer. With the brilliant manifestation of Neolithic culture, human activity was at its peak, the traces of which, in many cases are luckily undisturbed.

Neolithic Period

In Kashmir, the Neolithic tradition during the last three decades has attracted the greatest attention. It represented a higher stage of settlement and is a symbol of revolution which succeeded the barbarous way of life of the Palaeolithic period. The main effects of this period are demonstrated by the size of settlements and density of population. The conditions were found favourable for supporting a dense and settled population. The major

phase of this culture was self-sufficient settlement units with multi-faced subsistence patterns. The hunting and food-gathering, no doubt, continued to be the major source of food but at the same time, there is a variety of archaeological evidence to suggest that food production based on farming and stock-raising was also resorted to. Now there is a substantial quantum of data available which shows the emergence and widely distributed pattern of Neolithic settlements in the valley. In view of the continued changed surroundings, the pre-historic man had to adapt himself to new environments and he was successful as he proved to be most adaptive. Alteration of an environment resulted in the spread and decline of human settlements as well. In need of food, both the animals and the men had to resort to migration or, in the alternative, face extinction⁴⁷.

Numerous archaeological investigations have been conducted in Kashmir during the past several decades which have provided the sequence of discoveries relating to the nature and the extent of Neolithic settlements. Archaeological research as a result of systematic explorations and scientific excavations has brought to light series of such settlements which are impressive and distinctive by dint of their findings and associated remains. The excavations of some of the major sites have provided a well-established and documented chronological sequence reflecting an inter-regional relation. The sites in the valley by uncovering in broad exposures have shown that the Neolithic settlements were relatively prosperous and predominant. The habitation remains, the varieties of lithic and bone tools, technique of ceramics, means of subsistence, funerary practices, ritual disposition and identification of cereals have been analysed in detail which provide a reliable data on the settlement pattern of the valley.

The polynological investigation of the Kashmir valley has confirmed that 5,000 B.P. was a hypsithermal or warm optimum period⁴⁸ and as such there was abnormal pressure of population on the available sources of subsistence because of the significant improvement in the climate. Obviously there must have been mass migration, regular and prolonged contacts with the regions beyond the frontiers of the subcontinent resulting in the swift and drastic changes in cultural life of the society. The record of the climatic oscillations for the period has been well recognized and archaeologically known sites have provided an authenticated system of wide distribution of settlement pattern.

Distribution of Settlement Pattern

The distribution of settlement pattern of the Neolithic times spread practically over whole of the valley. As against the preceding period, the people now occupied the lower levels mostly on the top of the Karewa beds as compared to *margs*. There was improvement in the material growth which also led to the growth of population. Large areas as such were required to accommodate the expanded population. Almost all these settlements lay in close proximity to water which included rivers, channels, streams or even lakes. The sources of such surface water was relatively stable throughout the year. Because of the availability of water, the land and the surrounding areas were suitable for cultivation, hunting, fishing and fowling. Though the cultural development of the mankind began from the Upper Palaeolithic times in the valley but in particular, the Neolithic settlements marked an event of great cultural revolution.

In ancient times, the valley of the Kashmir was divided into two great divisions known as *Kamraz* (Skt. *Kamarajya*) and *Maraz* (Skt. *Madavarajya*). *Kamraz*

comprised the localities on both sides of the river Jhelum below Srinagar and Maraz those above it⁴⁹.

These very old geographical units are now represented by the districts of Srinagar, Badgam, Pulwama, Baramulla and Anantnag. Extensive archaeological research in recent years has marked the traces of the Neolithic settlements in almost all the districts. Burzahom on Shalimar-Nasim link road, Nunar near Ganderbal and Baimlun in Wangath near Kangan—a main station on Srinagar-Leh road, were earlier reported from Srinagar district. Now in this district such sites have been identified at Damodar Udar near Srinagar aerodrome, Dragtiyung near village Prang on the right bank of river Sindh and above it at Kijpora on the confluence of Sindh and Kranknadi (anc. *Karanakavanhini*) both on the Srinagar-Leh National Highway. In Badgam district, the Neolithic settlements have been spotted at Hab Shah Saheb, Hayatpur, Khan Sahib, Kosh Hund, Kaneer and Qalishpur. Similarly these habitational sites have been recognized at Sempur, Pampur, Shah Pandur, Sombur, Olchibagh, Panchgom, Begagund, Dadsar, Hariparigom, Pinglish, Balapur and Gufkral in Pulwama district. In Baramulla district, these have been spotted at Garhom-Sangri, Tarakpur on the bank of Wular lake, Kriri Chak, Kulla Dour, Mukam Udar, Tapribala, Wanigom, Yeh Teng, Gopas Udar, Khor, Pattan, Deokampure, Kingamdara, Petha, Singhpur, Kanishpur near the town itself and Huin below it. Evidences of such settlements have been found at Jaya Devi Udar and Thajwor near Bijbehra, at Brah, 9kms. above the archaeological monument of Martand and at Waztal above the ancient spring at Mattan in Anantnag districts⁵⁰.

The Neolithic cultural deposit with a scanty reference of chronological sequence was earlier reported in a limited dig at Burzahom in district Srinagar. The results

were poorly demonstrated. It was then maintained that the earliest level of this deposit was associated with the oldest agricultural period in Mesopotamia range dated 4,000 to 6,000 B.C. followed by an early phase of Indus Valley culture ranging from 3000 to 1800 B.C. without referring to any established system of settlement pattern⁵¹.

The existence of Neolithic culture at the site was confirmed on the basis of evidence provided by distinctive finds represented by pottery, polished stone and bone tools. Soon after some experts argued that this culture, the only one of its kind, could not be of such an earlier date⁵². The controversy lingered on till the declaration that Archaeology as a central subject was extended over the State of Jammu and Kashmir as well. The Archaeological Survey of India immediately thereafter took up the excavations at the site on priority basis which lasted for over a decade⁵³. The results of the excavations were fascinating and awe inspiring. The settlement pattern and the cultural material obtained are unique and distinct from other cultures of the sub-continent and as such the Kashmir Neolithic Culture has been termed as 'The Northern Neolithic Cultural'⁵⁴. The structural evidences and other associated remains were subsequently confirmed from the excavations at another Neolithic site of Gufkral.

Burzahom (Lat. 34° 10' North, Long. 74' 54 East) in district Srinagar is situated at a distance of 24kms. northeast of Srinagar. The site is approached from two routes. One goes through the famous Mughal gardens of Nishat and Shalimar and the other leads through the famous shrine of Hazratbal and the University campus. Both the routes from either sides of Dal Lake meet near the village Telbal on Nasim-Shalimar link road and the site proper lies just half a kilometre inside this link road. The original extension of the mound must have been cut

by the Dagwan Nallah which drains the slopes of Dacchigam wild life sanctuary. To its east is the glaciated peak of Mahadev mountain and the glittering waters of the Dal Lake lies to its south. On the north, the low hill mostly bare of trees is divided by lower valley-bottom cultivated with rice-fields alternated with orchard-shaded village tracts. Behind at a distance are the snow-peaked mountains which are gradually getting higher and higher but more forest-covered. Cut into deep valleys, rivers, streams, lakes and glaciated peaked mountains, there are mountain ranges visible on the west also. About two kilometres away from the village on this side is the Hazratbal-Nasim Bagh (now University Campus) route which meets Srinagar-Leh National Highway at the outskirts of Ganderbal, the mouth of the Sindh valley which is one of the finest of all⁵⁵. Surrounded by such natural grandeur and abundance of water, the elevated Karewa of Burzahom was an ideal place for the Neolithic man to settle.

In a more or less similar situation is another site of Gufkral. Gufkral (Lat. 35° 54' North, Long. 75° 60' East) in Tehsil Tral, district Pulwama, is situated at a distance of 41 kms. to the south-east of Srinagar. Adjacent to village Bonamir, it lies between the two streamlets which join river Jhelum some 10 kms. from here and feed the paddy fields down below. Ever running streams known as Waltara Nallah flows to the east of the upraised mound of Gufkral. On the west, a link road has been cut along with the bottom of the mound, the height of which is 13m from the level of the road. This link road connects it with the tehsil headquarter, Tral, on the one hand and on the other with the Srinagar-Jammu national highway. The top of the mound measures 400m x 75m⁵⁶.

The excavations at both the sites have identical settlement patterns and material cultural but plenteous

and the extensive nature of distribution of artefacts at Burzahom, makes this site as an important settlement area than Gufkral and other explored Neolithic sites. Apart from the heavy concentration of artefacts, the site of Burzahom had sufficient availability of grazing land, water and natural surroundings and as such the Neolithic man found it a suitable place for his settlement and development of his culture. On the whole, the excavations here have for the first time offered an unique opportunity for undertaking profitable research in uncovering the record of human activities during the Neolithic period. Human occupation at the site for a longer time or as a matter of fact at other contemporaneous sites in the valley indicate that the climate was warmer and wetter. The archaeological records have now presented the well documented settlement pattern relating to the development of Neolithic culture.

Settlement Pattern

On stratigraphical basis, four periods have been recognized at Burzahom out of which first two periods exclusively belong to Neolithic stage⁵⁷.

The residential houses of the people at the earliest level were cut into the loessic deposit which is also the virgin soil. These were circular, rectangular and in rare cases square also. These were dug out so as to avoid the onslaughts of dreadful winds to which such open sites in proximity to mountains were generally subjected to. Besides, living in underground pits or rooms is more comfortable in harsh winters or during the days of scorching heat. It is how the conception of 'Pit Dwellings' came into the mind of these Neolithic men.

The first type of dwelling pits belonging to period I are categorised as circular or oval pits. These pits were narrower at the top so that the occupant had to cover the

less dimensioned portion of his house but at the same time, these were wide at the bases so that he could accommodate more members of his family. The diameter and the depth of the pits varied from each other as it appears that these were dug by the individual families depending on the strength of the family members. The largest one among these measured 2.74m at the top, 4.75m at the base and 3.96m in depth. The smallest pit had 1.25m as its diameter and was only half a metre deep. The deeper pits were provided landing steps upto a reasonable depth from where for further descent a wooden log or ladder might have been used. No such landing steps were provided in smaller pits and it is presumed that these were used directly from the working level of the pit itself.

The post holes provided on the periphery of the pits indicate that these were covered by a roof raised on the wooden posts. Some of the pits were inter-connected. Presence of ash or charcoal layer within the pits and in some cases with the animal bones suggest that these were besides the habitation, utilised for cooking and for warming themselves during inclement weather. The tradition of using a small room by the side of a kitchen is still being utilised both for dining and residential purposes especially in winter months even now. Well-laid out hearths in clay or in stones near the mouths of the pits along with storage pits having diameter ranging from 69 to 91cm confirm that the ground level of the pits was also occupied by the people during sunny days. This was not a new phenomenon as, such an open air life was enjoyed by his predecessor in the upper Palaeolithic period and this tradition is still continued by nomadic people who adopt pasturage as their profession or by Gujjars who along with their cattle move to the higher reaches of valley during summer months for better pasturable lands. In some of the storage pits animal bones and bone implements were also found.

The side walls of the pits were usually plastered in order to give them strength. The floors of the pits were usually provided with a thin layer of red ochre floor. Unplastered portion usually at the lower sides showed the marks of digging by long celts or picks. In some of the pits, picks made of antler were found. These were found in association with the rubber stones which were meant to sharpen the bony outgrowth of the antler so as to utilise it as a pick. In a few dwelling pits, conical but irregular stones were found. Their length varied from 0.91 to 1.51m, width from 0.22 to 0.44m and were generally lying over the floor of the pits in the corners. It appears that these were utilised for reclining purposes or for the rest after day's hard work and had no religious significance.

The cultural stratum of the deeper pits was found to have been disrupted by excessive snow or rain and also by the people who succeeded the Neolithic man.

The second category of settlements of the Neolithic people of period I was marked by square or rectangular pits which more or less looked like pit chambers. The concentration of these chambers was more in the centre part of the mound. On the southern side, these were found along with the dwelling pits. As compared to circular pits these were hallow. The prehistoric man had not to go deeper and the digging of these structures was, therefore, much easier and more convenient than the circular ones. The maximum depth of such structures was one and a half metre and the minimum depth ranged from 1.00 to 0.50m. One of the rectangular chambers measured 7m x 6.40m x 1m. In the centre of the mound, a big square chamber with its sides measuring 11m each was probably used as a community house⁵⁸. Small sized chambers were confined to the north of the mound. These contained significant finds of grinding tools meant for

rubbing or grinding of cereals or animal flesh. Each house was provided with a hearth or oven in the centre. These houses were densely packed together and the presence of pestles, mortars and grinding stones in these characterise them as granary or storage houses for the settlement as a whole. These are equally important for large settlements and mark density of occupation.

A noteworthy feature of these chambers was that a drain-like depression was running on all the vertical sides with deep post holes on the four corners. These drains served as a foundation for raised-up walls made with wattle and daub which also served as a support to the side walls of the chambers. These raised-up walls were supported by the big wooden posts placed at four corners of the chamber. There was as such no need of plastering the side walls as was done in case of oval dwelling pits. The wattle and daub walls were raised up to a convenient height from where the roof of the structure was raised duly supported by the corner posts.

The size and density of such settlements laid out with perfect geometrical symmetry were covered by roofs which consisted of birch bark and hay, the charred remains of which were found in a crescent shaped storage pit close to a dwelling pit and the pit chamber⁵⁹. Similarly, the charcoal pieces were identified as pine which even now is the main source of timber in Kashmir.

Charcoal pieces of broad leaved plants identified as birch (*Betulla utilis*) found in this crescent-shaped storage pit was the main waterproof material for covering of residential house till the middle of the present century. In Sultanate period and even afterwards, all the religious shrines were covered with this material. Even prior to this period, Sanskrit, Hindu or Buddhist literary compositions were written on the inner bark of birch (Sans.

Bhojapattra or Kashmiri *Burjapattra*). In medieval Kashmir, this was used both for learning and maintenance of accounts. Even in adjoining hill region, the birch was used as the general writing material⁶⁰.

Birch (*Betulla utilis*) is a moderate deciduous tree which occurs on open exposed tracts at the highest reaches of mountains. It is snow-laden throughout the greater part of the winter, beyond it treeless snowy wastes begin. It forms the upper edge of arborescent vegetation in the Himalayas at a height of 14,000 feet. The nearest place from Burzahom is the Mahadev mountain, 25 kms. towards east from where the bulk of material came to meet the growing demands of the Neolithic men in the valley for coverage of their settlements. Burzahom must have been the centre for the storage of this covering material, the essential part of the settlement in a place like Kashmir. The place as such has received the name since those very days which literally means the birch (*Burza*), place (*home*), i.e., the home or the place of birch⁶¹.

The Neolithic culture in period II seems to have reached its peak. There was profound shift in the settlement pattern. The dwelling pits or the chambers were filled up with mud and covered with a floor of thin coat of red ochre. This in turn served as a ground floor in their changed structural pattern represented by houses built of mud bricks, walls and mud platforms. These were provided with successive floor levels with post holes for timber to support the roof. Considerable variation was observed in the size of these dwellings. From a single roomed structure there was a large community house encountered at a depth of 2.13m. This large house structure measured 3.96m x 1.21m and had as many as 45 post holes. These post holes held branches and twigs of the trees so as to give a substantial facelift to the

structure. The deeper post holes held the roof of the structure. Excessive timber material utilised in these structures was frequently burnt as is indicated by a series of burnt material deposits in between the successive floor levels. This made the occupants to resort to reflooring of the damaged structures at various stages. The houses were provided with hearths, grinding stones and mullers. To minimize the extension of the damages to the structures as a result of frequent conflagration, water tank was built of stone slabs and rubbles so that the water was within their reach and nearer to their houses in the event of emergency. The exposure of tank, rectangular in plan, was confirmed by the presence of sand within it. Among the stone slabs of the tank, two slabs presented the most novel features which have direct bearing on the life style or the economy of the people living at that time.

Identical settlement remains were excavated at Gufkral. Here against the two periods of Neolithic culture, at Burzahom, three periods were demarcated but the cultural material or the uniformity and standardization of the houses exhibit similar patterns.

The earliest phase marked as period IA has been recognized as 'Aceramic Neolithic'. The tradition of constructing the settlements was the same as noticed at Burzahom. Cut into loessic deposits, these consisted of circular or oval dwelling pits with narrow mouths and wide bottoms. There were small and large dwelling pits and their diameter varied from 3.80m to 1.50m at the top. Large dwelling pits ascribable to phase I (c. 5000 B.P.) were shallow and were only 20cm to 30cm deep. At most all these exposed structures were surrounded by hearths and storage pits. The floors of both the dwelling pits and storage pits, all cut into loessic deposit, were plastered with red ochre paste. A number of post-holes were found

around the dwelling pits and the hearths. These were used for supporting the roof of grass and reed for their protection and preservation. In order to stop the penetration of snow and rain water into the houses during inclement weather, the lower portions of the super structures were plastered with mud mixed with reed, the remains of which were recovered during the excavations. Rectangular dwelling pits and open air huts were also located. Hearths found along with the houses were rectangular in plan. These were generally of clay which had turned red due to constant burning.

In the second phase of this period, chambered dwelling pits were encountered. These were deeper than their counterparts of phase I. However, hearths both circular and rectangular were of burnt clay. One of the circular hearth had its diameter (outer) as 93cm and had a depth of 30cm. Large quantity of ash and small pebbles were found within it. On its periphery, there were post holes, the presence of which, as in the case of rectangular or square pit chambers of Burzahom (period I), indicate that the people were accustomed to roast the animals after they were suspended from the poles. Normally no hearths were found in the dwelling pits and a wide area outside the pit was properly maintained by laying out floors which leads to the conclusion that the people used to live outside in the open during warm seasons and occupied dwelling pits in the winter. Some of the dwelling pits of the earlier phase were enlarged and then reused in this phase. This is indicated by the presence of deposits found in these pits.

The settlement pattern of the ceramic period carried a deposit of 35cm to 1.10m divided into two phases of occupation with distinct floor levels.

The next period defined as 'Ceramic Neolithic' is represented by a deposit of 40cm only. The settlement pattern of this period is marked by the presence of 5 to

7cm thick floor of yellow compact clay mixed with chunam running without break in the entire excavated area. Still it was frequently repaired. The presence of this thick floor with post holes and chunks of burnt clay with deep and wide reed impressions indicate an open-air housing pattern. Apart from this, a deep dwelling pit cut through the rammed earth and natural soil was encountered in one corner of the pit. It had (unlike such pits at Burzahom) a mud lined entrance with steps. This also confirms that the people preferred open-air dwellings in fair weather and such deep pits were utilised by them only in winter months. A noteworthy discovery in this period was the location of a potter's kiln having a diameter of nearly 1.70m with inner side and bottom well plastered. It was provided with a mouth. Large quantities of charcoal and charred wood specimens collected from this period suggest that this was characterised by extensive damages of the settlements due to fire.

The third period of the Neolithic settlement at Gufkral is categorised as mature Neolithic period. It is represented by a thick 70-80cm habitational deposit and is sealed by a thick whitish floor. The pattern of settlements here also is represented by a considerable building activity in the form of circular dwellings and storage pits cut through the thick rammed earth, circular mud walls, mud and rubble walls. A number of post holes surrounded the structures but surprisingly it is reported that exclusively around the Dwelling and storage pits no post holes were found. These were covered with removable conical thatched roofs made of reed and thin branches of willow trees⁶². Absence of post holes here is not a solitary case. The excavations of a Palaeolithic site at Ostravapetrkovice in Siberia revealed irregular oval shaped huts with two hearths occurring on the longitudinal axis of each hut but without any post holes⁶³.

On the whole, the patterns of settlement in the valley present a unique evidence and have no parallels in the sub-continent. It reflects an interesting study in the cultural link with the regions beyond the frontiers of India⁶⁴.

Tool Industry

The tool industry of the excavated sites comprise of rich and varied collection of stone and bone tools. The wealth of material of these finds especially from Burzahom reflected the basic genius of the people in their manufacture.

The raw material for the stone tools is Panjal trap and sometimes quartzite and slates. The Panjal trap is of greyish colour. When the tool is polished, it gives a greenish colour. At Burzahom, the stone tool products included axes, adzes, chisels, gravers with curved and oblique working edges, double-edged and perforated picks, flake knives, harvesters with perforations, sling balls, hammers, rubbers, pestles, pounders, querns, double-edged short and long points, drills, double-edged pokers, some with grooves at one end, long and short points, beaked and shouldered ended eyes etc.

Almost all the stone tools have their prototypes in bones. The bone tools encountered at the site of Burzahom are the noteworthy achievement of the Neolithic people. These are not only unique but fascinating as well. These included arrow heads, harvesters with or without perforations, barbed harpoons, long straight or curved awls, needles with or without eyes, points with a pointed tip and a grooved end, long and short sized double points, spears, borers, daggers, scrapers, grain pullers, pen shaped points, borer cum cobbler's poker, bodkins, personal ornaments like beads, pendants, combs and such other tools. Almost all these tools particularly in bone were highly polished except few isolated tools meant for rough use like

bone harvesters or picks. The excavations at Burzahom lasting for over a decade yielded over four thousands tools in bone and stone. The incidence of tools was more frequent in period II. This period also witnessed intrusive material from the contemporary cultures outside the valley.

The two year's dig at Gufkral also yielded a number of stone and bone tools. Made out of Himalayan trap, the stone tools found at the site were less than the bone tools which number eighty seven in all. The stone tools comprised of polished celts, finished and unfinished points with one or both ends sharp, ring stones, pounders, querns, points, balls, harvesters, spindle whorl with large holes, potter's engraver, etc.

The bone tools at Gufkral were made out of long bones, spinters and horns. These were represented by points, tiny-sized arrow heads, awls, piercers, scrapers, bone needle with a spoiled eye, double-holed harvesters (one had incised decoration on one side) etc. In phase third, i.e., mature Neolithic stage, the incidence of bone tools and well polished points was more than the preceding phases as was the case with the Burzahom artefacts in period II. Among the ornaments mention may be made of one cylindrical and highly polished bone bead, steatite beads, both cylindrical and barrel shaped carnelian beads. A good number of cowrie shells were also recovered from the third stage of the Neolithic settlement.

The comparative study of the tools from both the sites reveal that the finds from Burzahom being the most extensive collection, definitely belong to a well developed and far advanced Neolithic culture. On the whole, the technological niceties exhibit extreme similarity and a plausible proficence of manufacturers.

There was no dearth of raw material for manufacturing of tools. Being a mountainous valley, there was

abundance of material for making varieties of stone tools. Large number of cattle mostly domestic ones, including sheep, goat, ibex and forest loving animal like *Cervus* or deer were preferred for food and after consuming their flesh, their bones were utilised for the manufacture of specialized sets of tools needed for their day-to-day use.

Tool Technology and Functional Value

The marks left on the body of the tool, finished or unfinished are key to understand the various stage of its manufacture and help us to study the functional aspect of the tool. The technique involved in the manufacturing of all the varieties of the tools makes a very interesting study.

In any case, the stone tools had to pass through the techniques of pecking and grinding which are regarded as Neolithic innovations⁶⁵. At the initial stage a nodule was detached from the parent rock. It was flaked with a roundish hammer and given a requisite shape. The irregular scars that were produced were pecked down with the same hammer. It was then ground and in this way a uniform surface could be obtained. The edge of the tool was sharpened by striking it against the rock itself. Lustre on the tool was produced due to friction. The pitted surface visible on some of the tools is because of frequent hammering. The stone points were primarily produced by the techniques of grooving and grinding. Parallel grooves were cut in a slate piece and the individual points were detached between the grooves and were then ground and probably polished also. Mace heads or ring stones were usually made of ground stones with a central perforation for the shaft. Shaft holes were done by drilling from both sides with a bow drill or by abrasive or probably by some kind of a cylindrical drill.

The axe, however, was set with its cutting edge parallel to the shaft. It had to be fitted into a straight wooden shaft while the adze or other carpenter tool like the chisel had to be bound with an elbowed handle. The Neolithic settler had to rely on the stone axe more than anything and once it was made, it would outlast many flaked tools. The microwear studies have revealed that the ground axe had often been used as adzes and chisels also⁶⁶.

The manufacture of bone tools also must have involved several processes and each tool must have taken considerable time to complete. Generally the tools were made out of the long bones of antlers, sheep, goats, ibex, stags, etc., by adopting the techniques of splitting, chipping, grinding and polishing. In case of a needle, a high degree of uniform polishing right from tip to eye was produced by constant friction and drilling. Invariably the tips of the tool were always toothed and pitted. The shine was confined generally to the tips of the tool. The needles, awls and double-edged points carried lustre all over. Cutting down different sets of prongs of a harpoon or a comb was a more tough and brittle task. So also was the case with the manufacture of beads. All these delicate tools were made by flaking techniques and then ground, polished and drilled. The manufacture of these tools indicates a remarkable level of technical achievement on the part of Kashmiri craftsmanship in the Neolithic period.

All these varieties of tools had their functional value which has been identified by the marks left on the tools and by their shape, symptoms of handling and the gloss on their surface.

Picks, double-edged or single-edged, adzes, axes, hoes were used for digging of their settlements, cutting down trees and chiselling them for a meaningful use. Harpoons were meant for fishing, scrapers for skinning and

cleaning of the dead animals before preparing them for their meals, mace heads or ring stones for levelling the tilled-up land or for the transport of the wounded animal or for use as a fighting weapon, pestles, molars and querns for crushing or pounding of grains or flesh of the animals, perforated harvesters or knives for cultivation purposes etc. Needles with or without eyes, awls, double-edged points were used for stitching of the skin of the animals to wrap themselves. These along with spindle-whorls were also used for stitching and weaving of furs or woollen clothes required in a cold, windy and snow-covered area like Kashmir. Pendants, beads or combs were used for better bodily projections.

The Neolithic settlers in view of the multifunctional aspect of the tools were self-sufficient in their economy even if there are instances of penetration of the foreign elements also like barbed arrow heads, pins, bangles, antimony rods in copper, carnelian and agate beads. A flattened and coiled headed hair pin in copper from Gufkral is a significant discovery as its identical specimens have been found at Chanhudaro, Manda and even from similar other sites from the west. Such an increased interaction including the possible movements of people is also known from certain pottery shapes having type affinity with the other and then existing cultures outside the valley⁶⁷.

Ceramics

The earlier levels of the excavated sites of Burzahom or Gufkral did not yield any pottery which makes it out that the people at the initial stages of their settlements were not conversant with the art of manufacturing pottery and instead baskets or leather bags were utilised for collection of their food away from their settlements like their ancestors in upper Palaeolithic times.

The rectangular chambers did not yield any ceramics and the circular dwelling pits which were disturbed in later period or were abnormally deep yielded pottery. The cluster of such houses were constructed on the slopes of the mound at Burzahom in particular and were as such subjected to disturbances. Obviously later material penetrated into these dwelling pits which actually belonged to earlier levels. The field data has confirmed that 90% of the total circular dwelling pits were without pottery and stratigraphically were associated with rectangular chambers⁶⁸.

In the early stages of pottery production, the occupants of the Neolithic settlements made use of thick, crude, poorly fired, hand-made pottery. The shapes were characterised by bowls, vases and stems. A stem piece of dish-on-stand in coarse dull red ware was encountered at Gufkral in the early Neolithic level. Most of the pots had reed impressions below the neck portions and carried mat designed bases which suggests that pots especially with flat bases were made on mats. In the process the pots carried different patterns and designs on their bases.

Period II at Burzahom and later phases of Neolithic levels at Gufkral witnessed a sharp change in ceramics. Fine grey ware and burnished ware were now mostly used. Fine grey ware pots were mainly hand-made. It was of fine texture, had a thin section and its shapes were *lota* type of vases with out-turned collared rims, and jars. Surface decorations consisted of deeply incised brushing, scraping impressions and mat-impressed bases.

The ceramic of the period here was dominated by black, bright red and grey burnished wares with shapes represented by high necked jars with flaring rim, globular body and flat bases, bowls with or without stand, dish-on-stand with triangular perforated designs on the stem region and parallel grooves on the body and

small globular pots. External decoration included oblique incised incisions.

The burnished ware is the deluxe ware of the Neolithic culture in the valley. Their glamour made the earlier archaeologist to bracket these productions with those of 'Northern Black Polished (NBP) wares'. Besides, the characteristic feature of the ware was that it was available both in hand-made and wheel-made wares. The hand-made pottery bore mat-impressions on the bases but the wheel-made pots were without these decorations. However, both the types exhibited fascinating symmetry. In hand-made ware, an exception was square shaped bowl with four sides inclined down towards the base and having curved tops. It as usual bore a mat-impressed base. This pottery assemblage demonstrates the transitional stage when the Neolithic man resorted to wheel for making the pottery.

At Gufkral, along with the burnished ware, dull red ware was reported. A sherd with a graffiti mark was also recovered. At Burzahom, one dish type pot carried an ornamentation of a peacock-like bird which indicates an inspiration from outside the valley. Graffiti marks were observed on some other pots of this ware.

The cultural contact with the advanced societies of contemporary cultures of the neighbouring regions existed. A definite proof of occasional contacts with the valley and the regions outside is known from the ceramic evidences as well. Datable to c. 3700 B.P., a very important and a significant find in the period II of Neolithic Kashmir at Burzahom is a fine, globular, wheel-made red ware pot. It carried parallel grooves in the body. Such characteristic forms have been identified with motifs found at Hissar in eastern Iran and Kot Diji in Sind from pre-Harappan levels. Another intrusive find was a red ware pot made of a similar texture which

contained a wide variety of semi-precious stones represented by agate and carnelian beads numbering 950. It is reported that these were brought to the Indus valley from different regions. Quite likely in ancient times, Indian subcontinent was a store-house of carnelian beads. These along with other items were exported to Mesopotamia⁶⁹.

A rich array of objects found in the Neolithic settlements in this period and having their source outside the frontiers of the valley provided an important stimulation with regard to funerary practices also.

Funerary Practices

Frequent cultural waves took place in period II or mature phase of Neolithic settlements which had a collateral influence over the settlers in providing befitting burials to their dead. No burial as such is associated with the earlier phase of settlements and the absence of graves suggests that the people practised some other method of the disposal of their dead. It appears that they were concerned with the dead after they came in contact with the Harappans.

The Neolithic culture when in its peak in the valley had its distinctive burial practices. This is conclusively proved by the discovery of human burials during the course of excavations at Burzahom. The graves oval in plan were dug out within the settlement areas and these were exceptionally plastered with *Chunam* in the inner sides. Their diameter varied from 1.47 m to 2.03 m. Some of the graves had even disturbed the settlements of the earlier phase also. In most of the graves, no grave goods were found.

The human skeletons reported at Burzahom were both of primary and secondary types. The former contained extended articulated skeletons and the latter only the selected bones.

In the primary interments, the skeletons were kept in embryonic position. One of the typical such skeleton was placed in the grave which was dug into an earlier dwelling pit. Naturally this pit was filled with the later deposits and contained a considerable quantity of potsherds. Due to overloading of the deposits and also due to thrusting of stones in the pit, the skull of the skeleton was found in a mutilated condition. The orientation of the skeleton was south-west (skull) to north-east.

Another skeleton of an adult was resting on its left side with orientation in south-east to north-east direction. Five carnelian beads were found below the neck and it is inferred that the skeleton was that of a female.

An interesting burial was of a young man aged 45-50 years placed in a reclining position and resting on its back. Its head was leaning on one side of the body. The right leg was slightly bent and the left was fully stretched. The sides of the grave pit tapered towards the bottom. Just near the right foot of the skeleton, the pit line was demarcated by placing some big stones on the outer periphery. Actually the stones formed the line of another grave pit which contained the burial of a child aged about 5 years. The milk teeth of the child were quite distinct. The grave pit also contained tiny-sized red ware pots which could be the play toys of the child.

A very interesting and a unique type of skeleton was painted with red ochre and its skull trepanned. The skeleton was seen resting on its right side and oriented south-east to south-west direction. It was placed in a crouching position and the grave pit was plastered with *Chunam* in the interior and was sealed by a yellowish colour. The pit was firmly sealed after the flesh of the skeleton got decayed and the bones were sprinkled with red ochre. Smearing of defleshed bones of a buried person with red ochre has a long history. It was

a world-wide custom in olden days. It was regarded as a symbol of fertility⁷⁰.

Another interesting feature of the skeleton was that the skull showed the marks of trepanning represented by seven finished and four unfinished circular holes. None of the holes showed marks of healing⁷¹.

Trepanning was a drastic cure for insanity or even for headache among some primitive people. Healing of the holes showed that the patient recovered but it could not be a complete cure. Generally the primitive man when complained of any type of ailment in any part of the body, he was given an incision to let the pain escape⁷². It was not a sure means for removal of the pain⁷³. Trepanning of the skull was a risky affair. In case of the present burial, the skull was of an adult aged 31-35 and it was trepanned because he must have been suffering from acute headache caused due to snowfall. Such diseases are the result of nutritional deficiency in pre-historic diet⁷⁴. Repeated trepanning shows that the pain did not subside and ultimately because of the crude form of surgical operations⁷⁵, the person died at a young age. In some African tribes such practices are still prevalent⁷⁶.

It appears that the skeleton belonged to an important member of the society. Apart from the trepanning marks, the skull and almost all the bones were painted with red ochre which reflects some sort of a reverence paid to deceased. This is not noticed in other burials. The deposits of the pits yielded skull, bones of animals and horn pieces of antler. Associated with the skeleton itself was a soap stone marked by circular flat disc with three linear perforations. Besides, the lower jaw of an animal painted with red ochre was also found in this grave pit⁷⁷. Quite likely these were the offerings.

In all other secondary burials, the flesh was first desiccated. Then the legs and arms were folded at the

joints. These were treated with red ochre and then deposited in a pit, in some cases along with a skull. In one such grave pit, two conical stones were placed in an inclining position towards the leg region on the top of the pit. Only folded arms and legs were noticed in this pit. An earthen pot filled with red ochre paste was found just outside the pit itself. Within the pit a barrel-shaped paste bead was found. In an another grave pit, the skull and long bones were deposited together after treating them with red ochre solution. The skull was here placed towards the north-east side of the pit⁷⁸.

The close study of about ten exposed skeletons showed that the settlers of the Neolithic culture were long-headed dolichrocranic individuals. They had sloping, long and narrow head, protruding occiput, low receding forehead, prominent ridges above the orbit of eye and were of a sturdy build with tall to medium stature. Long headed crania of the human skeletal remains resemble the Harappan cemetery R37 more closely⁷⁹.

The excavations at Burzahom have also yielded animal burials. This is again a peculiar feature without any parallel in sub-continent. The animals represented in the burials were dog, deer, wolf and ibex. The intentional burial of the animals in the habitational areas shows the love and regard the Neolithic settlers had for these animals. No animal burials were found in period.

The burial pits of the animals like the houses of their masters were oval in shape, narrower at top and wider at the bottom. They varied in diameter from 0.90m to 1.05m. The filling of the burial pits generally consisted of ash mixed with clay.

Three types of animal burials were noticed at the site. In the first type pet animals or such other animals were sacrificed to honour the dead persons. After consuming the flesh, the bones were deposited with the human body

in the same grave pit either at a higher level or at the same place where the human body was put. In one case, skull of a dog was deposited and in other cases, some fragmentary bones of goats and antlers were buried along with the human skeletons. Occasionally, the animal bones were also treated with red ochre solution along with those of human remains.

The second type of animal burials were fractional. In one such grave pit, five skulls of a wild dog and the fragmentary bones marked by ribs, limb bones, pelvic girdles and antlers were found. The condition of the recovered bones showed that these were first sacrificed, then stripped of the flesh and afterwards were ceremonially buried. The sacrifice was a part of the ritual being the beginning of an early religion of the Neolithic settlers of the valley.

In the other fractional burial, disarticulated bone fragments of a Himalayan ibex were found. At a lower depth in the same pit, fragmentary bones of antler, dog and sheep were found.

In the third category were those animal burials which were deposited in the pits either singly or in two. Such types of burials were mostly of dogs and in two cases, of wolves. In both the cases, the body of the animal was kept in north-south orientation in a crouching position. Exception to this, was the skeleton of a dog which was found lying in a supine position resting on its back with legs upwards.

In the third type of animal burials, all the bones were found in a well preserved condition. Normally the length of the skeletons of the time of exposure varied from 0.60 to 0.86 m. In this mode of disposal, the burial pits included skeletons of pet animals either single or in two in the same pit but at different levels. Such burials were mostly of dogs and in two cases, of wolves. The complete double burials deposited at different levels

in the same pit were of dogs. In one case, the skeleton of a wolf was found at a higher level. Of the two single primary burials, one was of a dog while the other was of a wolf. The bones of wolf found in articulated condition were completely charred. This was the only grave pit which was filled with a large quantity of ash.⁸⁰

Like human burials, no animal grave pits were reported from the excavations at Gufkral. However, a good variety of animal bones were recovered from various phases of Neolithic settlements. These were both of domesticated or wild animals used for food. The animals represented were sheep, goat, wild cattle, wolf, Himalayan ibex, Himalayan Tahr, serow, red deer, dog, pig and fish besides the bones of hare, hedgehog, rodents and beaver⁸¹.

Artistic Expressions

The artistic efficiency of the Neolithic settlers is already known through the composition and methods of manufacture of wide range of stone and bone tools besides the bow used for their day to day requirements. In aceramic stages, he knew the art of weaving which is clearly understood from the presence of small and large points, double-edged points, needles and bodkins in stone or bone for making leather or baskets as containers or for stitching of animal hides and even for weaving rough woollen clothes as a safety from adverse climatic conditions. His weaving skill is also understood from the manufacture of various designs of mats, impressions of which are still visible on the pottery, though hand-made, heavy in section and ill-fired in the beginning.

Ceramic production is an index to a settled community. Its analysis itself deals with the structural

patterns as it was carried on a domestic level in houses scattered throughout the community. The manufacture of pottery required tolerance, patience and a technical know-how. In the beginning, he might have tried to use unfired pots which he must have dried up in the house or in the open. In due course of time, he must have obtained the conception of hardening the pots in a kiln by observing his clay hearth in his own house which became hardened due to fire lit in it and thus got a conception of hardening the pots in a kiln, traces of which were located in excavations at Gufkral. He had to face the climatic constraints. During rainy or snowy days, there must have been lack of raw material. The bad weather must have prevented the raw material from drying properly. Lastly cold or damp weather often increases the time limit to complete a pottery vessel.

Both hand-made or wheel-made pottery required a substantial knowledge of technical achievement. In the beginning, man had not acquired much knowledge of mixing the ingredients with the clay in proper ratio or the firing of the pots by maintaining reasonable temperatures at the initial stage. Hence there was production of crude ceramic types. Subsequently, the man came into contact with the Harappans and thus acquainted himself with the advanced method of manufacturing the pottery. He used levigated clay and mixed the silica and sand particles in proper ratio so that he could have a better stuff of raw material for shaping the pots. He used two techniques of 'Coiling' and 'Strip' methods for the manufacture of the pots. In case of 'Coiling', the pots were built in various stages by adding different coils of clay one over the other and each one being pressed and smeared till these were properly joined. More and more coils of clay were added till the pot was given the required shape. In case of 'Strip', the pots were developed to a certain height by hallowing lump of clay

placed on a mat and pressed at the bottom and the sides. The shape thus acquired was added with alternate loaves of clay both on the exterior and interior sides of the pot one after the other till the required shape was obtained. The surface of the pot was made uniform by a piece of wood, potsherd or a bone piece and for giving proper treatment on all sides of the pot, the mat was rotated frequently instead of the pot itself. In the process, the pots carried mat-impressions at their bottoms besides maintaining their surface uniformity. After allowing the pots to get hardened in the sun, bonfire of bushwood might have been kept around to burn the pots for final use, of course, till the technique of putting the pots direct into a kiln was introduced. In either case, these were ready for use when made cool.

In case of wheel-turned pottery, the uniformity of the external surface was maintained by the aid of a dabber and anvil. The clay was beaten by the dabber outside and inside it was supported by the anvil. Some dabbers were decorated with incised patterns which were obviously transformed on the external surface of the pot.

The techniques of polished stone or bone tools, involved, as already detailed out, also help in different processes like extraction, grinding, chiselling, hammering and polishing. Small delicate tools like beads, pendants, combs etc. had to pass through flaking techniques, and were then ground, polished and drilled with extraordinary skill and exactness.

The first and the only instance of the Neolithic art on stone slabs was obtained from a stratified dig at Burzahom, (P. II). These were part and parcel of a wall of a tank rectangular in shape. It was an accidental discovery as most of the stone slabs were plain without any engravings. Among dozens of such slabs, only two bore the engravings. The builder of the tank in period II never

knew that the slabs used by them in the wall carried decorative art as these two also were fixed in a lateral position along with others without paying any attention to the artistic motifs on them. Obviously, the engravings on the slabs belong to an earlier phase.

Even among the two, only one slab with a base width of 70cm portrayed the most impressive expression of art in relation to Neolithic settlements in the valley. The engraved portion is divided in two registers and is smooth as compared to the plain one. The slab is partially damaged on the top of its left side. However, both the faces of the slab are flat.

The top register shows a dog on the right and on the left are depicted two suns, one complete with sixteen radiating lines and the other one is slightly damaged because of the breakage of the slab perhaps at the time of its fixation in the wall structure of the tank. The dog represents its association in the Neolithic man's hunting in the dense forests and the two suns reflect the rising and the setting sun as on the movement of sun only depended the safety and success of the hunter while wandering in search of his prey in thick jungles⁸².

The second register carries a very important scene which directly reflects the economy of the man and his life style. This is, therefore, the centre of interest. The central figure is a male Barasingha (Kashmiri *Hangu*) with two male human beings shown attacking the animal. More or less in a sitting posture, the man in the front attacks the animal with his bow and arrow. One arrow has already struck it below the neck and the other man from behind attacks it with a long spear, a part of which has already touched the animal. This artistic masterpiece is, as such, an important and authenticated record of occupation of the Neolithic people and their settlements.

The engraving on the other slab was incomplete but the sketch as carved on it represents a hut with a thatched roof and the hind portion has been identified as an animal and its tail. However, the entire figure is highly stylized and abstract. It has, therefore, been identified as a 'tectiform', probably a tradition carried over from the Palaeolithic rock paintings and engravings⁸³.

Ritual Practices

There is no solid proof of any ritualistic or religious practices performed by the early Neolithic people. They were concerned only for success in hunting and for continuance and abundance of forest produce. The only representation of a hunting scene presumed to manifest magico-religious sentiments of the people⁸⁴, actually indicates the symbols within the range of decoration and predominantly presents a role of the Neolithic society. It is only with the contact of the neighbouring people at a later stage that the conception of ritualism came into the minds of hunting groups of the valley.

The formative event in driving the Neolithic people of the valley towards magico-religious tendencies could be traced to the chain of contacts between them and the Harappans in the middle of the second millennium B.C. It was a time of profound cultural change, specialization in tool technology and in other spheres of economy. The population was substantially larger than the settlements of the earlier periods. It was only then that the people of the valley began to honour their dead and started deliberate burials for them within the habitational area. In some cases, the defleshed bones of their dear kins were sprinkled with red ochre paste with a hope for a better future for the living souls and the posterity. It is the cult of the dead which initiated the pre-historic man to magico-religious devices⁸⁵.

Again the Kashmir Neolithic settlement at Burzahom has revealed the existence of ritual burials of dogs, wolves, goats and ibex. These were sacrificed in honour of the dead. An assemblage of numerous skulls and bone remains of the pet animals encountered in one of the grave pits constitute convincing evidence of the ceremonial burials of the animals which again is unusual in the Indian context. Thus for the first time there is an archaeological record reflecting pre-historic man's faith in the ritual practices.

Subsistence Pattern

The Neolithic man's life and his way of living is a main driving force for the expansion of his largely self-sufficient settlement pattern as detected in the valley of Kashmir. The natural surroundings in and around the settlements and their resources are the basic factors for the activities which effect subsistence. The settlements on the whole were surrounded by dense forests and good hydrological conditions which enabled the Neolithic man to enlarge the scope of his settlements at various stages of his existence. The vegetational history lends an authentic source of information of the environmental conditions and along with the animal bones provide a meaningful source material about the activities and subsistence conditions of the settlements.

The Kashmir valley and the Neolithic settlements in particular had an expressive chain of rich forest belts which covered the flanks of both the Pir Panjal and the Himalayas. The belts were natural habitats of wild plants and animals and were of great economic value to the people. It was a daily routine for the Neolithic man to go into these forests for firewood for providing warmth in his settlements, for cooking his meals and for roasting of his hunt and in particular the procurement of raw material for preservation, maintenance and coverage of

his houses. These also provided natural grass and herbs for his animals and wild fruits for his own subsistence. The charred wood pieces recovered from their settlements and associated post-holes belonged to mixed type of broad leaved varieties of tree species which included blue pine (*Pinus wallichiana*), elm (*Ulmus wallichiana*), Walnut (*Juglans regia*), Poplar (*Populus nigra/alba*), Deodar (*Cedrus Deodara*), Birch (*Bituala Utilis*), Willow (*Salix tetrasperma*) etc.⁸⁶

The evidence of food-grains is still slender. The people had begun the cultivation of cereals belonging both to wild and cultivated groups. These included wheat (*Triticum compactum* and *T. sphaerococum*), twisted grains with longitudinal striations of the husk of barley (*Hordeum vulgare*) and lentil (*Lens culinaris*). Weed seeds associated with the cereals were identified as of leguminous plants (*Medicago*) and wild at (*Avena fatua*)⁸⁷. The presence of stone querns, pestles, molars and mortars in and around the houses along with hoes, mace heads and harvesters point out to the primitive type of agricultural practice⁸⁸.

The cultivation of ancient species of cereals was the secondary occupation of the Neolithic people of Kashmir. The main subsistence economy was hunting, fowling and fishing.

Among the tools, the plain and tanged but mostly polished and sharp pointed arrow heads in bone were found in abundance. A considerable number of short and long spears were also found both in stone and in bone. All this suggest that hunting was of paramount importance which is fully corroborated by a very significant discovery of a hunting scene on a stone slab. With these tools and also with the aid of stone balls, they could kill the flying birds and animals in particular while in hiding at a distance. The popular animals

hunted were wild sheep (*Ovis orientalis*), wild goat (*Capra aegagrus*), goat (*Capra hircus*), sheep (*Ovis aries*), wild cattle (*Bos nomadicus*), red deer (*Cervus elephas*). These were herbivorous animals and were easily found in the surrounding hills of their settlements.

The other animals living on herbaceous plants in the forests and killed by the Neolithic man for their food were Himalayan ibex (*Capra ibex*), Himalayan Tahr (*Capra Jamlai*) serow (*Nemorhaedus bubalinus*) and bear (*Ursus*). The non-herbivorous animal was the wolf (*Canis lupus*). At a later stage domestic fowl (*Gallus*) and pig (*Sus scrofa*) were added to group of animals.⁸⁹

The fishing was also an important game. The lakes and streams in the nearby areas were full of fish and they were caught by means of harpoons and afterwards pierced by spear heads or similar such other pointed tools.

The digging of their settlements or the Karewa soil for plastering of these whenever needed was a daily routine work for the settlers. So also was the cutting down of the trees. For such purposes, he utilised stone tools like long celts, axes, adzes, chisels, hoes etc., found in abundance. Pins, awls, piercers, double-edged points bodkins were used for stitching of their garments which also suggest that they attached greater importance to weaving⁹⁰. This is further authenticated with the discovery of spindle whorls both in stone and pottery from Gufkral excavations which indicate the beginning of spinning of thick threads for weaving of woollen garments.⁹¹

The people, though leading a pre-historic life, were also concerned with their personal decoration. Ornaments like beads, pendants, ear-rings and other decorative items found in a fairly good number at Burzahom suggest that the inhabitants were affluent and cheerful. Multifarious varieties of such perforated portable objects found in abundance at Burzahom

indicate that the pre-historic people were thoroughly aware of their personal adornment. The presence of combs indicate that the people were also careful to keep the hair on their heads in order as well as tight which fact is archaeologically proved by the discovery of a hair pin from Gufkral excavations (mature phase of Neolithic culture). The hair pin and other ornamental object like agate and carnelian beads point out to striking parallels of an identical nature from foreign lands.

Foreign Contacts and Parallels

The existence of a sound settlement with a sound subsistence economy is very well acknowledged by developing or developed societies. Archaeological records have now shown that the people of the Neolithic settlements in the valley were prosperous and most powerful inhabitants. Hence, despite isolated geographical position, difficult mountain terrains, they had far and wide contacts with the people of the neighbouring regions which included Gandhara, Afghanistan, Iran, Western Turkistan, Central Asian Republics, Eastern Turkistan or Sinkiang, Sikkim, Nepal, Assam, China and further east.

The man from immemorial times was in search of new avenues like abundance of fresh water, fresh lands and fertile soil for himself and his cattle. This resulted in the growth of land-routes⁹². These routes formed the basis for maintaining relationship and contacts within the regions. The men and ideas travelled over these routes. One of the such ancient route passed along the northern slopes of Karakoram, the Pamirs and the Hindu Kush to and fro, from China to the Mediterranean and the Europe beyond⁹³. In course of time, this very route which existed through the ages between China and the west through

Central Asian Republics was termed as the famous 'Silk Route'. From Sinkiang (ancient Turkistan), one of the Republics of Central Asia, there were numerous side routes leading to Kashmir. However, the most famous route was the Karakoram pass, a desolate highway for entry into trans-Indus or Kashmir. Asian nations like China, Russia, Central Asian Republics, Pakistan and India meet here at a point 17,000 above the sea level. The people in the ancient days crossed through difficult terrains and descended upon the warm lands on the Indus valley from here⁹⁴. Even from China itself there were routes leading to Brahmaputra in Assam and then crossing over adjacent regions, the ancient man could travel to Japan and Korea. A significant cultural relationship is now amply demonstrated between Kashmir and these regions by identical evidences of either house plans or by stone or bone tools or ceramic similarities or domesticated animals, primitive varieties of foodstuff, food habits or by burial customs etc.

The geographical location of Kashmir is distinct and unique, and from early times, it served as a meeting place of cultural waves from different directions⁹⁵. On one side it received cultural impetus from China and on the other from Iran and Central Asia.

During Neolithic period there appears to have been closer contacts with China. Substantial and fascinating parallels are from the sites of the Yang Shao or Lung Shan cultures of north and north-east parts of China respectively. Yang Shao is the most important Neolithic site of China. Here, as in Kashmir, we come across circular or rectangular open settlements dug into loessic deposit. Storage pits were also found by the side of huge communal dwelling pits. Perforated semi-lunar knives or harvesters in stone or bone tools reveal many typological affinities with Burzahom assemblage⁹⁶. As in Kashmir

Neolithic culture, the dead were buried here within the habitational area and that too without any grave goods. In another Neolithic settlement of Lung Shan, the burials were found at the edge of dwelling compound. The bones of the dead were sprinkled with the red ochre paste. Polished stone was common and much use was made of bone or arrow heads suggesting of hunting economy of the people⁹⁷.

The material equipment of the Neolithic China advanced to high lands of Manchuria, south of Gobi through the ancient sites of Lo Lan and Lop Nor in Sinkiang where some grey ware sherds and Neolithic tools were found. A dog was buried with their masters in Kashmir, China and this burial is reported in the Ang-Ang-Hsi culture of Manchuria. The bone and stone tools are also found in the Shilka valley of eastern Siberia⁹⁸. Here dog was a prominent animal of pre-historic man whose occupation was fishing and hunting as was the case with the Neolithic man of Kashmir.

The Chinese Neolithic tool assemblage was recently discovered in Sikkim⁹⁹. These were marked by celts, adzes and particularly perforated harvesters. A similar assemblage has been reported from Nepal¹⁰⁰ and Assam. The Chinese type of stone knives-harvesters have been found in Jomon Neolithic phase in Japan and Korea¹⁰¹. This demonstrates the cultural link between Kashmir, China and further east.

A fully developed Neolithic economy is now exemplified from the Central Asian Republics. These are marked by self-sufficient villages of Djeitun culture in South Tukmenia, Anau IA western Turkistan, Keltminar or Keltminar related settlement patterns in the lower reaches of Amu Darya. The cultural material obtained from various sites reveal that the people subsisted by hunting, fishing, gathering and perhaps by some form of incipient

stock-breeding. Similar is the case with the Hissar Neolithic sites in southern Tadjikistan where Neolithic settlements have been recognized to be near to the primary agricultural settlements in the Near East. South Tadjikistan is said to represent the Neolithic strata of Burzahom in Kashmir¹⁰². The investigations have shown that Central Asian Republics got increased interaction from the west. It is marked by a distinctive culture that is intrusive from Iran¹⁰³.

The early man needed a reliable and ensured source of food which he obtained only through the control of breeding of animals and plants. The ancestors of domesticated sheep, goats, ibex or a range of wild animals were normally hunted for food. This was further supported by the primitive type of grains identified as wheat, barley and lentil in Neolithic settlements of Kashmir bearing West Asian links. Iran formed the primary zone of the entire belt. It is from here that migratory trends extended towards north, east and west. Crude and hand-made pottery with rich lithic industry and numerous bone tools have been found at Bakun, Sialk and Hissar sites in Iran. Anau in western Turkistan is cited as having parallel cultural material to these sites. Kashmir Neolithic thus represents the eastern-most limit of diffusion of the stylistic horizon from Iran through Swat valley in the middle of the second millennium B.C.¹⁰⁴.

Iran had a strategic position between India and the west. There has been frequent migration of men and ideas at various stages. The advanced urban civilization of Indus or Harappan also shared close links with Iran. Its rich and varied legacy passed first to Baluchistan because of its proximity to it. It then penetrated into Afghanistan, Punjab, Sind and other parts of India¹⁰⁵. This is evident from the discovery of cultural material

of excavated sites both in Pakistan and India. Obviously Kashmir did not remain immune from this cultural wave. The most striking example is the fine, grooved red ware pot (P. II, Burzahom) with painting in black of the buccranian motif having identical representations at Hissar in eastern Iran and Kot Diji in Sindh¹⁰⁶. Occurrence of agate, carnelian beads and copper arrow heads in the same cultural horizon share indisputable link to the Harappan civilization. An outstanding object from Gufkral mature phase of Neolithic settlement is a copper pin which again has West Asian affinity. These with slight variations have been found in eastern Mediterranean regions, Hissar-III (Iran), Anau (Turkistan), Mohanjodaro, Chanhudaro, Jhukar (Pakistan)¹⁰⁷ and Manda (Jammu)¹⁰⁸. The spiral headed pins are distributed widely from south-eastern Europe to the Indus¹⁰⁹. These, of course, take different forms. These, however, may or may not in all cases be historically related but its presence in the Neolithic context of the valley shows increasing frequency of movements during this period between the pre-historic people of Kashmir and the urbanized people of Harappa.

The human skeletal remains from Burzahom have also been identified as of Harappan and West Asian stock. Croniological study reveals that these resemble the Harappan cemetery R37 more closely. The people were of strongly built body. An important evidence of squatting facets observed in three Burzahom tibiae have been found similar to kish'A' (ancient Summer near Babylon), Hissar III (Iran), Anau (Turkistan) and Nal (Baluchistan). These again point to West Asian affinity. On the other hand, the measurements of Burzahom female skeletons are well within the range of female measurements of the Harappan female skeletons whereas the estimated—mean stature of the male skeletons fall within the range of the average values of

stature observed in the living populations of the Punjab¹¹⁰. On the whole it reflects that the Neolithic people had developed wide contacts with outside region.

The West Asian, Iranian and Central Asian influence could have come into Indian sub-continent through Baluchistan and Afghanistan. This is evident from the results of excavations from Mehrgarh in Baluchistan¹¹¹ and Mundigak, Aq Kupruk and Darra-i-Kur in Afghanistan. Mundigak culture is the counterpart of pre-historic Anau which flourished between c. 5000 to 4750 B.P.¹¹², the recognized date of Neolithic culture of Kashmir. At Aq Kupruk also, the early Neolithic culture is represented by non-ceramic levels. The lithic and bone assemblage of the non-ceramic Neolithic and ceramic Neolithic varied very little from each other here which is the case in the early stages of Kashmir Neolithic as well. Ceramics of Darra-i-Kur tie in nicely with the two Neolithic phases of Burzahom. Intentional goat burials here (one in association with the fragmentary skeletons of one or two children) apparently relates to the Neolithic of Kashmir, eastern Central Asia and south Siberia¹¹³.

The recent archaeological research in Pakistan has revealed identical features of Kashmir Neolithic culture either in respect of settlement pattern or ceramics or the subsistence pattern from the excavated sites of Gumala¹¹⁴, Ghalighal¹¹⁵, Sarai Khola¹¹⁶, Loebanr¹¹⁷ and Aligrama¹¹⁸.

The nucleus of a Neolithic culture similar to that of Burzahom has been defined at scores of sites in the western Himalayas.

The Neolithic settlement pattern, therefore, presents both parallels and contrasts with sites documented in other regions. However, the contact seed sown along the trails flourished. This had a profound and lasting effect in shaping and development of cultural trends in the subsequent periods of Kashmir's history as well.

Notes and References

1. J.L.K. Jalali, 'Kashmir and its people and their language, *Heritage of Kashmir* (ed). Prof. F.M. Hassnain, Srinagar, 1980, pp. 12-13.
2. F.M. Hassnain, 'Composite Cultural Heritage of Kashmir', *J&K Research Biannual*, Vol. II, No. 1. ARM, Srinagar, 1978.
3. Gavin Hambly, *Central Asia* (English Edition), London, 1969, pp. 1-11.
4. Rigveda, V. I, 193.
5. Atharva Veda, II-18 and IV-73.
6. Vayu Purana, LXIX, VV 292-96.
7. C.F. Oldham, 'Serpent Worship in India', *JRAS*, 1891, p. 391.
8. John Marshall, *Mohanjodaro and the Indus Civilization*, 1931, Vol. III, p. 1, CXVI & CXVII-II.
9. H.D. Sankalia, 'Prehistoric Colonization in Indian Archaeology & Literary Evidences, *Puratattva*, No. 28.
10. Jatendra Nath Banerjee, *The Development of Hindu Iconography*, Calcutta, 1956, p. 345.
11. V.D. Mahajan, *Ancient India*, Delhi, 1960, pp. 320-323.
12. Walter R. Lawrence, *The Valley of Kashmir*, Srinagar, 1967, pp. 174-175.
13. P.N.K. Bamzai, *Kashmir and Central Asia*, New Delhi, 1960, p. 49.
14. Peter J. Ucko et. al., *Man, Settlement and Urbanism*, Gloucester, 1972, p. 25.
15. I.W. Cornwall, *Prehistoric Animals and their Hunters*, London, 1963, pp. 25-26.
16. Reba Ray, *Ancient Settlement Patterns of Eastern India*, Calcutta, 1987, p. 146.
17. Birbal Sahni, 'The Himalayan uplift since the advent of man, *Current Science*, August, 1936, Vol. V, p. 61.
18. K.C. Jain, *Prehistory and Proto-history of India*, New Delhi, 1930.

19. Shashi Prabha Asthana, *History and Archaeology of India's contacts with other countries from earlier times to 300 B.C.*, New Delhi, 1976, p. 214.
20. The former Glaciation of East Liddar Valley, *Memoirs Goel, Society of India*, 1928, Vol. 49, Pt. 2, p. 340.
21. De Terra and Paterson, *Studies on the Ice Ages in India and Associated Human Cultures*, Washington, 1939, pp. 234-235.
22. Birbal Sahni, *Op. cit.*, p. 57.
23. De Terra and Paterson, *Op. cit.*, pp. 93-94.
24. H.D. Sankalia, 'Early Man in Ice Age of Kashmir', *Science Today*, 1959, Vol. 4, No. 6, pp. 16-26.
25. De Terra and Paterson, *Op. cit.*, pp. 92-95.
26. R.V. Joshi *et. al.*, 'Quaternary Glaciation and Palaeolithic sites in the Liddar Valley (Jammu and Kashmir)', *World Archaeology*, 1974, Vol. 5, pp. 369-379.
27. B.B. Lal, 'Palaeoliths from the Beas and Babganga Valleys', *Ancient India*, No. 12, 1956, pp. 538-61.
28. Indian Archaeology, A Review, 1966-67.
29. G.C. Mahapatra, *et. al.*, 'Discovery of Lithic Artifacts in Jammu Area', *The Daily Tribune*, August 14, 1966.
30. S. Maqbool Ahmed, *et. al.*, *News Letter, Central Asian Museum, Kashmir University*, 1982-83.
31. D.P. Agrawal, *et. al.*, 'Preliminary Sedimentological Studies on the Quaternary Deposits of Kashmir', *Himalayan Geology Seminar*, Dehradun, Vol. 9, 1981, pp. 631-37 and 'Kashmir key to past climate, *Science Age*, Vol. 3(8), 1985, pp. 46-57.
32. Palaeoclimatic Project, Srinagar, *Field Survey*, 83-84.
33. R.K. Pant, *et. al.*, 'Some New Lithic and Ceramic Industries in Kashmir', *ME*, Vol. VI, Pune, pp. 37-40.
34. D.P. Agrawal, *Man and Environment in India through the Ages*, New Delhi, 1992, pp. 214-16.
35. Louis Dupree, *Prehistoric Research in Afghanistan* (1956-1966), Philadelphia, 1972, pp. 14, 36, 70.

36. Philip L. Kohli, *Central Asia. Palaeolithic Beginnings to the Iron Age*, Paris, 1984, p. 39.
37. W.R. Lawrence, *Op. cit.*, p. 16.
38. Aurel Stein, *RT* (ed. & Tr.), Vol. II, p. 406.
39. Kai Peterson, *Prehistoric Life on Earth*, London, 1963, p. 14.
40. D.P. Agrawal, 'Cenozoic Climatic Changes in Kashmir - The Multidisciplinary Data', *Climate and Geology of Kashmir and Central Asia, The last four million years*, (eds.) D.P. Agrawal, Sheela Kusumgar & R.V. Krishnamurty, New Delhi, 1985, p. 9.
41. G.C. Mohapatra, 'Cultural Ecology of Early Man in India', *Recent Advances in Indian Archaeology Deccan Collage, Post-Graduate and Research Institute, Poona*, 1985, pp. 23-24.
42. De Terra and Paterson, *Op. cit.*, pp. 103, 232-33.
43. D.P. Agrawal, *Man and Environment in India through Ages*, New Delhi, 1992, p. 12.
44. Ranjana Ray & Ashok K. Ghosh, 'An Enquiry into Absence of any Mesolithic site in Kashmir', *Central Asia and Western Himalayas—A Forgotten Link* (ed.) G.M. Buth, Jodhpur, 1986, p. 27.
45. D.H. Gordon, *The Prehistory of India*, Bombay, 1960 (2nd ed.), p. 21.
46. Ranjana Ray and Ashok K. Ghosh, *Op. cit.*, p. 32.
47. I.W. Cornwall, *The World of Ancient Man*, London, 1964, pp. 25-26.
48. Rekha Dodia, *Palynological Investigations on the Kashmir Valley, India* (Ph.D. thesis-unpublished), Ahmedabad, 1983, p. 214.
49. Aurel Stein, *Op. cit.*, p. 436.
50. (i) De Terra and Paterson, *Op. cit.* 233-34.
 (ii) M. Naseem, *The Neolithic Cultures of North West Indo-Pakistan sub-continent*, New Delhi, 1982, p. 135.
 (iii) ASI, *Indian Archaeology—A Review*, New Delhi, 1961-62 (p. 17); 1962-63 (p. 9); 1964-65, 1968-69 (p. 9); 1976-77 (p. 19); 1979-80 (pp. 19-25).

- (iv) S.L. Shali, *Kashmir: History and Archaeology Through the Ages*, Indus Publishing Co., New Delhi, 1993, p. 61.
51. De Terra and Paterson, *Op. cit.*, pp. 233-34.
 52. Stuart Piggot, *Prehistoric India*, England, 1952 (Reprint), p. 39.
 53. Bridget and Raymond Alliclin, *The Birth of Indian Civilization* England, 1958, p. 158.
 54. B.K. Thapar, 'Central Asia and India during Neolithic and Chalcolithic Period,' *Central Asia Indian Council for Cultural Relations*, Azad Bhavan, New Delhi, 1970, p. 78.
 55. Fredrick Drew, *The Jammu and Kashmir Territories*, Delhi, 1976, p. 191.
 56. Urmila Sant, *Neolithic Settlement Pattern of North-eastern and Northern India*, Delhi, 1991, p. 169.
 57. ASI, *Indian Archaeology—A Review*, New Delhi, 1961-62, p. 17.
 58. S.S. Saar, *Ancestors of Kashmir*, New Delhi, 1992, p. 18.
 59. H.D. Sankalia, *Prehistory of India*, New Delhi, 1977, p. 164.
 60. Aurel Stein, *Op. cit.*, Vol, I, VII, 508 (note).
 61. G.M. Buth and R.N. Kaw, 'Plant Husbandry in Neolithic Burzahom Kashmir,' *Climate and Geology of Kashmir and Central Asia*, (eds.) D.P. Agrawal, Sheela Kusumgar and R.V. Krishnamurty, New Delhi, 1985, pp. 109-112.
 62. A.K. Sharma, 'Excavations at Gufkral', *Puratattva*, No. II, New Delhi, 1979-80, pp. 19-25 & Neolithic Gufkral, *Central Asia and Western Himalaya—A Forgotten Link*, (ed.), Dr. G.M. Buth, Jodhpur, 1986, pp. 13-17.
 63. Bohuslav Kalina, *Antiquity*, Vol, XXX, p. 98.
 64. B.K. Thapar, 'Neolithic Problem in India,' *Indian Prehistory*, Poona, 1964, p. 93.
 65. Bridget and Raymond Allichin, *Op. cit.*, p. 279.
 66. R.K. Pant, 'Microwear Studies on Burzahom Neolithic Tools, Kashmir, *ME*, 3, 1979, pp. 11-18.
 67. H.D. Sankalia, *Op. cit.*, p. 167.
 68. S.S. Saar, *Op. cit.*, p. 17.

69. Bridget and Raymond Allichin, *Op. cit.*, p. 295.
70. G. Thomas, *Studies in Ancient Greek History*, London, 1949, p. 209.
71. ASI, *Indian Archaeology—A Review*, New Delhi, 1962-63, p. 54.
72. Marjorie and C.H.B. Quennel, *Every day life in Preshistoric Times*, London, 1959, p. 54.
73. Warwic Bray David Trump, *The Penguin Dictionary of Archaeology*, London, 1970, p. 237.
74. M.M. Lahr and J.E. Bowman, 'Palaeopathology of the Kechipawan site', *Journal of Archaeological Science*, Vol. 19, Number 6, Academic Press, London, Nov., 1992, p. 639-40.
75. K.P. Okley et. al., *Man*, Vol. LIX, No. 133, 1959, p. 33.
76. A.K. Sharma, 'Neolithic Human Burials from Burzahom, Kashmir', *Journal of Oriental Institute, Baroda*, Vol. XVI, No. 1, March, 1967, p. 242.
77. *Ibid*, p. 241.
78. *Ibid*, pp. 239-242.
79. Basu, et. al., *Human Remains from Burzahom*, Calcutta, 1980. Also see Comments by A.K. Sharma on 'Cultural Ecology of the Neolithic in India by A. Sundara, *Recent Advances in Indian Archaeology*, (eds.), S.B. Deo and K. Paddayya, Poona, 1985, p. 52.
80. A.K. Sharma, 'Animal Burials from Burzahom—'A Neolithic Settlement in Kashmir', *Journal of the Oriental Institute, Baroda*, VI. XVIII, Nos. 1 & 2, Sept-December, 1968, 41-44.
81. A.K. Sharma, 'Excavations at Gufkral', *Puratattva*, No. II, New Delhi, 1979-80, pp. 19-25.
82. A. Ghosh, *An Encyclopaedia of Indian Archaeology*, Vol. I, New Delhi, 1989, p. 51.
83. B.M. Pande, 'A Neolithic Tectiform from Burzahom, District Srinagar, Kashmir', *Journal of the Indian Anthropological Survey of India*, Vol. 7, No. 2, October, 1972, pp. 175-77.
84. B.M. Pande, 'Neolithic Hunting Scene on a Stone Slab from Burzahom, Kashmir', *Asian Perspective*, Vol. XIV, 1971, pp. 134-138.

85. E.O. James, *Prehistoric Religion*, London, 1957, p. 30.
86. Rekha Dodia, *Op. cit.*, pp. 11-12.
87. G.M. Buth et. al., *Op. cit.*, pp. 109-110.
88. M.N. Deshpande, 'Archaeological Sources for Reconstruction of the History of Science of India', *Indian Journal of History of Science*, Vol. VI, No. 1, 1971, pp. 1-2.
89. A.K. Sharma, *Op. cit.*, p. 23.
90. T.N. Khazanchi, 'Pit Dwellers of Kashmir', *The Illustrated Weekly of India*, Sept. 5, 1976, pp. 25-27.
91. A.K. Sharma, *Op. cit.*, p. 23-24.
92. S.M. Ahmad, 'Central Asia and Kashmir', *Central Asian and Western Himalaya—A Forgotten Link*, (ed.), Dr. G.M. Buth, Jodhpur, 1986, p.2.
93. K.N. Pandita, 'Editor's Preface: Ladakh—Life and Culture', Srinagar, Kashmir, 1985.
94. Bhabani Sen Gupta, 'Karakoram Highway', *The Hindustan Times*, New Delhi, June 18, 1986, p. 11.
95. P.N.K. Bamzai, *Kashmir and Central Asia*, New Delhi, 1980, p. 13.
96. Shashi Prabha Asthana, *History and Archaeology of India's Contacts with Other Countries from Earliest Times to 300 B.C.*, New Delhi, 1976, p. 214.
97. K.N. Dikshit, 'The Neolithic Cultural Frontier's of Kashmir', *ME*, Vol. VI, 1992, pp. 30-35.
98. Bridget and Raymond Allchin, *Op. cit.*, pp. 158 & 178.
99. A.K. Sharma, 'Prehistoric Exploration in Sikkim', *Puratattva*, Vol. 10, 1978-79, pp. 82-83.
100. T.C. Sharma, *Prehistoric Archaeology of Assam* (Ph.D. Thesis), London, 1966, p. 282 and 'the Neolithic Pattern of North Eastern India', *Modhu recent Researches in Indian Archaeology Art and History* (ed.), M.S. Nagrajaro, New Delhi, 1987, pp. 41-52.
101. A. Sundara, 'Cultural Ecology of the Neolithic in India', *Recent Advances in Indian Archaeology—Proceeding of Seminar*, (eds.) S.B. Deo and K. Paddaya, Poona, 1985, p. 46. Also see K.N. Diskshit, *op. cit.*, p. 35.

102. V.A. Ranov, 'The Hissar Neolithic Culture of Soviet Central Asia', *ME*, Vol. VI, Pune, 1982, pp. 63-68, and Foreward to S.P. Gupta's book *Soviet Central Asia and Indian Borderlands*, Vol. 1, New Delhi, 1970.
103. Phillip L. Kohl, *Central Asia Palaeolithic Beginnings to the Iron Age*, Paris, 1984, p. 70.
104. Giorgio Stacul, 'Harappan Post-Urban Evidence in the Swat Valley,' *Frontiers of the Indus Civilization*, (eds.) B.B. Lal, S.P. Gupta and Shashi Asthana, New Delhi, 1984, pp. 271-275.
105. H.D. Sankalia, *Op. cit.*, p. 84.
106. H.D. Sankalia, 'Iranian Influence on Early Indo-Pakistani Cultures, *Central Asia, Indian Council for Cultural Relations*, New Delhi, 1970, p. 64.
107. Stuart Piggot, 'Notes on certain Metal Pins and a Mace Head in Harappan Culture', *Ancient India*, No. 4, pp. 27-32.
108. J.P. Joshi and Madhu Bala, 'Manda—A Harappan site in J&K, *Harappan Civilization* (ed.), G.L. Possehil, 1982, *op. cit.*, p. 108.
109. Phillip L. Kohl, *Op. cit.*, p. 108.
110. Basu Arbinda and A. Pal, *Human Remains from Burzahom, Anthropological Survey of India Publications*, Calcutta, 1980, p. 118.
111. J.F. Jarrige, 'Excavation at Mehrgarh—Naisharo, *Pakistan Archaeology*, (ed.), Ishan H., Nadiem, Karachi, 1986, p. 118.
112. Edgar Knoblock, *Beyond the Oxus*, Great Britain, 1972, p. 233.
113. Louis Dupree, 'Prehistoric Research in Afghanistan, *Transactions of the American Philosophical Society*, Philadelphia, 1972, pp. 34 & 80-81.
114. A.H. Dani, 'Excavation in the Gumla Valley, *Ancient Pakistan*, Vol. 5, 1970-71.
115. G. Stacul, 'Excavation near Ghaligai and Chronological Sequence in the Swat Valley (West Pakistan), *East and West*, 19-4-91, 1969, Rome.

116. M.A. Halim, 'Excavation at Sarai Khola, *Pakistan Archaeology*, No. 7, 23-89, 1970-71 and No. 8, p. 36, 1971-72, Karachi.
117. G. Stacul, 'Excavations at Loebanr III, (Swat, Pakistan) *East and West*, 26 (1 - 2); 13-30 Rome, 1976. 'Dwelling and Storage Pits at Loebanr III' (Swat, Pakistan), *East and West*, 27: 227-53, Rome, 1977.
118. G. Stacul and S. Tusa, 'Report on Excavations at Aligrama' (Swat, Pakistan), *East and West*, 27: 151-205, Rome, 1977.

Beginning of Early Historical Period

Iron and Megalithic Culture

The Neolithic settlement during its long period of c. 2000 years unleashed an extensive range of cultural horizons and despite positive indications of connections with the well developed Harappans, the valley continued with its prehistoric way of life. This period witnessed a systematic but gradual development of early man's settlement. He thought of his permanent dwelling, domestication of animals, cultivation of soil, clothing, family life, art and religion. Thus he rose to maturity and civilization.

In next two thousand years c. 3,200 B.P. to 1,000 B.P., he, because of favourable climatic conditions for major part of the period, made steady progress in his settled life and acquainted himself with diversity of building forms, town planning, better means of living, closer links with the people of outside regions and finally made strenuous efforts to have knowledge of technological advancement.

The introduction of iron has played a crucial role in the technological advance of mankind. In India, the iron technology had a gradual growth. It is opined that the introduction of iron took place in the sub-continent with the arrival of Aryans—the users of distinctive painted grey ware ceramics around 3000 B.P. if not earlier¹. It, at a later date, transmitted by degrees to south India through the Megalithic folk. In Iran and Pakistan, the use of iron

is found in the fragmentary remains of the dead in carins or cist graves. Quite likely, the tradition was carried over from Sialk in Iran².

The spread of iron technology in Kashmir is not very well demonstrated. A very scanty evidence of iron is coming forth from the two excavated sites of Burzahom and Gufkral. Iron is represented at Gufkral in period II associated with the arrival of Menhirs, a simplest form of megaliths. It was obtained here in the form of points and rods³. No chronological estimation of iron bearing deposit has been earmarked at the major pre-historic site of Burzahom. At the newly explored pre-historic site of Dragtiyung near Prang, 35 kms. from Srinagar on Srinagar-Leh national highway and on the right bank of river Sindh, a fairly substantial quantity of smelted iron or iron slag is found scattered all over the area in association with Neolithic finds but pending excavations, no stratigraphical sequence can be determined. However, the limited occurrence of iron in the Megalithic context at Gufkral around 3,000 B.P. has to be viewed in the overall context of the beginning of iron in the northwestern frontier region with which the Kashmir valley had close links from early times. In this connection, mention may be made of the spread of iron at Pirak, in the Kacchi plain, Gandhara graves between Chitral and Taxila, Ghali Ghai, V. Mundigak VI in Pakistan and now at Gufkral in Kashmir⁴. All these fall more or less in the same time bracket of c. 3000 B.P. Still there is no uniform chronological sequence available. Earlier date than this for iron has been reported from Gufkral settlement⁵. On the basis of such contradictory data, it is not clear whether Iron age technology in India was unicentric or multicentric or its proliferation unilinear or multilinear⁶. However, well-documented and convincing arguments for growth, dispersal or diffusion of iron have been adduced

emphasising thereby the theory that its end came by 2700 B.P. or with the advent of N.B.P. In archaeological record, it is correlated to early historical period⁷.

The Ghandhara Grave culture in the Swat valley is taken to be associated with the movement and setting in of Aryan speaking people⁸. It is evident that the Aryans had knowledge of iron from their contacts with an iron-using people outside India. The word *avas* has frequently been mentioned in *Rigveda* which appears to have covered gold, copper and iron. The early introduction of iron in India on literally grounds also is attributed to Aryans⁹.

It has been observed that the Menhir type of megaliths in the valley were ceremonial stones and not as commemorative monuments as have been identified outside the valley. The latest study of such monuments illustrates them as symbols of worship and not as memorial stones¹⁰. However, the valley of Kashmir has not remained isolated from the cultural influence of burial cists which spread in the western borders of the Indian sub-continent. These graves have been located in Leh valley of Ladakh on the border of Tibet. The excavations conducted on some of these in the beginning of the century have yielded burials containing disarticulated human bones accompanied by bronze and iron objects. The ceramic contents are impressed or painted in dark red colour. The occurrence of bronze and iron objects in the cist-like graves in the Leh valley of Ladakh shows the incorporation of the Megalithic monuments already within the Iron Age¹¹.

Again in recent years cist graves have been reported from a high plateau on the left of river Liddar in the vicinity of Aishmuquam 68 kms. from Srinagar near Pahalgam. The graves are like box-chambers with orthostats on four sides surmounted by cap stones. The grave goods

included dark red coloured pottery (some pots besmeared with red colour internally), copper rings, wire, shell and probably iron objects as well. In one of the smaller pots with flaring rims, smoothened neck and sides, a tooth and some isolated bones of a human being were also reported¹². Without recording any chronological data at the site, the four slab-stones have been extracted and lie deposited in the Central Asian Museum of Kashmir University. This again points to the close links with the north western frontier region, Baluchistan bearing cultural influence of iron age and with similar finds from Talish basin of Upper Iran or from Central Asia¹³.

The excavated settlements at Burzahom or particularly at Gufkral do not give much indication of any major change in the pattern of living on the arrival of iron knowing Megalithicians'. In general these are considered more as pastoral nomads rather than settled agriculturists¹⁴. Many of the Neolithic traits continued in this period also. The presence of polished stone axes and bone tools from the preceding Neolithic culture in the valley formed part of the cultural matrix of the Magalithic period also¹⁵.

Magaliths are the most remarkable pre-historic monuments. They range from small stone-rows to massive, awe inspiring, tall, vertical and standing stones called Menhirs. They are erected singly or in groups and like other varieties of these monuments namely cist graves, pit circles, cairns, dolmens, cromlechs, stone circles, henges and chamber tombs have some sepulchral, commemorative or ritualistic association. They are generally set up by the end of Neolithic period but in the valley, like the Neolithic culture these too do not bear affinity with such of the monuments found in the sub-continent.

The excavated structures of the largest valley settlements at Burzahom (P. III) and at Gufkral (P. II)

ascribed to megalithic or Menhir traditions do not project any major change in the way of life accompanying the arrival of iron or megalithic folk. The hunting gathering economy lingered on and the indigenous traits were not given up completely.

The Menhir type of megaliths were erected with great drive and their installation warranted maximum physical and mental concentration on the part of the people who were concerned with the projection of such monuments.

These have certainly been categorised as pre-historic structures but their setting and the resources illustrate some sort of continuity of worship¹⁶.

The religio-cultural beliefs brought about a social change in the Neolithic men of the valley with the advent of Harappans and in course of time formed an integral part of the local culture. Apparently not associated with any sort of burials, these megaliths are not commemorative monuments but represent a conception of some divine force which initiated the people towards image worship having come into focus by the end of savagery¹⁷. The worship of such stones of peculiar and uncanny features¹⁸ is an inspiration which the people of the land received from their contacts with the Indus valley people by the close of the second millennium B.C. Such monolithic stones were revered as 'Svayambhu' (self-born) images like:- trinity Brahma, Vishnu and Shiva marked by three snowy pyramidal summits to the west of Banihal, monolithic stone revered as Shanker Pal (the rock of Shiva) on the mount Mahadeva to the east of Dal Lake, the highest peak of mount Haramukhta or Shiva's diadem in the Sindh valley as an emblem of Lord Shiva, self-created symbolic representation of Shiva and his consort in a cave of Harsheshvara (Lord of happiness) on a hillock north of village Khunamoh (anc. Khunamosa) at a distance of 14 Kms. north-east of Srinagar, and similar representations

in the cave of *Dhaneyswar* (Lord of meditation) on a hill 20 kms. to the east of Bandipura, district Baramulla. Such symbolic stones were dedicated also to be the representations of Shakti—the universal conception of mother Goddess as well. The most important shrines are at *Tripursundari* in Kulgam, *Trisandhya* in Anantnag, *Jvalamukhi* near Khrew in Pulwama, *Sharika* at Srinagar, *Sharda* at Teethwal (now in Pakistan), *Rajni* at village Tullamulla near Ganderbal (Srinagar), *Shaliputri* at Baramulla, *Bhadrakali* in Handwara and so on. These megaliths, therefore, gave a significant contribution towards the advancement of religious ideas which changed the socio-religious life of the people in the valley at a later date.

There appears to have been powerful contacts or movements of megalithic folk in 3,000 B.P. into the valley. In the first instance, they started the erection of these megaliths over the Neolithic settlements as we come across at Burzahom, Gufkral, Begagund, Brah but at places like Waztal, Tarakpur, Sombur, Pampur, Dadsar these are installed slightly away from such habitational sites which point out a different outlook of the people interested in raising such monuments. At Hariparigom, these monuments can be grouped under three heads. Group I consists of five stones fallen mostly in north-south direction varying in size from 7'-9" to 9' in length. About a mile north of this group, there is only one megalith measuring 14'-15" in length and it is lying flat in east-west direction. Besides, typical Neolithic pottery, the surface collection here also yielded stone celts and maceheads. Against these, the group III of megalithic stones are situated on a lower terrace towards the modern village and just above the Walatara Nallah. These have fallen mostly in east-west direction and in size vary from 3' to 20'-5" in length. The main feature of this group is that no pottery was found around these monuments and the section exposed by Walatara is

totally devoid of any cultural deposit. The digging in and around the standing megalith at Dadsar yielded only small river pebbles with rammed clay. No other relic was encountered. The monument is just lying below the excavated site of Gufkral. At a later stage a seated image of Shiva has been carved in the centre of the monolith facing the site of Gufkral itself. This confirms that their installation at the initial stage too carried religious sentiments of the people. Apart from this, their erection may have also served the purpose of observing the movements of the sun and moon which could help them in predicting the climatic fluctuation on which depended the subsistence of the people. Such a fear of unknown or of higher powers, though strange but mighty, could have also been the most convincing proof for their installation. However, these bridge the gap between the New Stone Age and the Metal Age¹⁹.

In Assam, the megalithic culture as in the valley of Kashmir is not only pre-historic but still persists among the tribal communities as a living custom and tradition. The menhir type of monumental stones are set in row or in groups of three, five or seven stones. In some regions like Cachar hills these are decorated with the carvings of animal figures. Some are having female sex organs, rainbows and vessel carvings. Most of the megaliths in the valley also carry cup marks. No links for Assamese megaliths have yet been established. It is not clear if this culture has come there from west or from the east i.e., Japan²⁰. In the valley, the number of scientifically excavated sites is still scanty and it is not possible at present to arrive at far reaching conclusions.

Settlement and Subsistence Pattern

The patterning of material culture elements or settlement or subsistence system have archaeologically been

recorded at Burzahom and Gufkral excavations which at the moment are of much greater value and interest.

The frequency of bone or stone tools found in P. III at Burzahom were now less. The stone tools like picks and hoes were almost absent. Stone axes, adzes and harvesters were available but in less proportion. The mace heads in particular were found in abundance which confirms that the smoothening of tilled lands was under active operation. The hunting of birds and animals was also still in vogue. This is also supported by the finds of bone tools represented by arrow heads, spears and points. Harpoons found along with these tools indicate that the people substantiated their subsistence by fishing also. However, the percentage of the bone tools also had a decreasing trend.

In this period at lowest levels black burnished ware of P. II (Burzahom) was encountered but it was of poor fabric and devoid of polish. The predominant ware associated with the menhirs is the thick coarse hand made gritty red ware. The sherds fracture irregularly and the cores appear often dark in colour. The matrix contains lot of coarse sand filters. It is of 'strip' technique and shows signs of 'brushing'. The main shapes are big and small jars, water pitcher (Kashmiri *nota*), small vases (Kashmiri *choda*). Cups and deep basins (Kashmiri *Pyalas* and *Toaks*) are rarely found.

The settlement pattern showed a considerable variation. Instead of mud or wattle or daub walls made with wooden posts, rubble wall structures sprang up²¹. Tightly packed, the oval shaped rubble structures are marked by series of rooms of varying sizes with open sites in proximity to the covered ones. The open spaces of the houses were also floored so as to continue the tradition of open-air settlements of the previous periods. Indications are that both the types of settlements were covered with logs, birch bark and hay. The peculiar feature of these settlements was that these were confined to the slopes of the mound

so as to be nearer to the streams or water channels. Storage pits with the flesh-consumed bones of the animals were also found. The cultivation of the crops of the earlier periods was continued here also.

The patterns of settlement and subsistence from the identical excavated site of Gufkral again provide parallel cultural sequence.

The Megalithic period here is marked by 50-60 cm thick habitational deposit. Contrary to Burzahom megaliths, in all sixteen in number of varying sizes (the length of the smallest one is 2.90 m while of the longest one is 6.66 m) have fallen down. As compared to Burzahom, the megaliths here are more in number and are grouped together posing an impressive scene. No deep foundation for their installation was laid out as has been the case with Burzahom megaliths or in one of the standing megalith at Dadsar. In one of the trenches laid near one of the fallen megalith at Gufkral, a pit cut into layer was found to be full of small broken pebbles which represented the packing material of the fallen megalith. Such pebbles were found strewn near the group of fallen megaliths and their concentration near these, indicates that these were razed to the ground along with these when they fell down due to human vandalism and by natural catastrophes.

The cultural deposit in these settlements is marked here by numerous floor levels. One of the significant feature of these floor levels was that a 10 m thick floor level was observed to run through the settlement area with intermittent cuts in between due to frequent process of digging pits for storage of grains or other edible material. Some of the deeper pits cut even into earlier levels were utilised as 'refuse pits'. A considerable quantity of pottery and animal bones were recovered from these 'refuse pits'.

Burnished grey ware, thick red ware of the preceding period comparatively in lesser number continued in this period also. The gritty red ware significant ceramic production of Burzahom Megalithic culture was, however, reported to have appeared here in the closing phase of mature Neolithic stage but now it was observed that its percentage here was on increase. Besides a new ceramic of wheel made dull red ware is said to have appeared with shapes almost similar to those found in gritty red ware. These included jars with shapeless rims, long necked jars, bowls, basins, dish-on-stand and medium sized globular jars (Kashmiri vora type). The functional shapes of the pottery were brushed with the aid of straw and reed which had left their marks on the surface of the pots. The new ceramic discovery here was a vessel with a channel spout.

Both stone and bone tools continued, but their varieties and number dwindled. Among the stone tools ring stones or mace heads, both finished and unfinished, were recovered in good number. Among the tools, a new innovation was a bone handle made from tibia of sheep and goat. A fine cobbler's awl was also recovered. However, the bone tools obtained here lacked the super quality of polish.

The other noteworthy objects obtained in this period here were a canine shaped stone pendent, spindle whorls with medium sized holes, a cowrie shell, a copper bangle and a pin, a wooden bead besides iron tools in the form of points and rods.

The animals represented were cattle, sheep, goat, dog and fowl. Among the wild animals, fragmentary bones of ibex were found in abundance.

The main innovation in the closing phase of this period was the introduction of rice (*Orvza Sativa* Linn)²². The rich wealth of rice plants in the Megalithic period datable to 3,000 B.P. or earlier at Gufkral points to its cultivation

which must have taken place from plains. Abundance of water coupled with congenial climatic conditions helped its swift growth. It provided an additional evidence of diet which subsequently constituted the staple food of the Kashmiris. This reflects the free movement of the people from outside the valley resulting in the growth of population and occupation of new sites. Besides the newly invented 'cereal of rice, the crops of the earlier period continued to be in use in this period also.

The Megalithic or the beginning of iron age assigned to a time bracket of c. 3200 to 2700 B.P. do not give much indication of any significant change in the living style other than the one already in practice during the preceding periods. However, it was a terminal phase between the Neolithic-Megalithic tradition in the valley and the developed form of appearance of iron²³. This resulted in the rapid movements of the people from the adjacent regions. This led ultimately to the evolutionary processes in the periods that followed.

Early Historical Period—Fresh Evidences

This period from 2700 to 2500 B.P. is the history of various social-cultural influences that emanated from the inflow of the people from the neighbouring regions and had direct impact on the subsistence of the people. Still there was strong indigenous flavour which encouraged the people to continue with the material culture from the earlier periods but at the same time with the introduction of traits from the new arrivals, cultural unification came into force.

In view of the wide diversity of megalithic sites away from the Neolithic cum Megalithic habitational areas, or the fresh evidences either of archaeological sequence or dating, it is not justifiable to bracket this period with the cultural material of Buddhist site at Harwan 4 kms south-east of Burzahom²⁴ and thereby ascribing a time of

over 1000 years to megalithic period alone. The limited cultural deposit at the excavated sites does not permit to come to a firm assessment when the early Iron age pottery of foreign lineage has come from the ancient site of Semthan near Bijbehara town, district Anantnag²⁵.

The cultural deposit of this period at Burzahom is hardly 40 cm below the present ground level. The settlement pattern is represented by mud brick structures. Some iron objects like nail, wire, arrow heads were recovered along with a negligible number of stone and bone tools which did not carry polish or lustre of the earlier periods. The pottery was generally wheel made and thin red ware pots represented by lids, dishes and jars.

At Gufkral also, the period is marked by a thick compact floor made of whitish colour and was found to run throughout the site without break and thereby seals the megalithic deposits down below. Besides this floor level, thick rubble walls associated with it were detected in some of the exposed areas.

Hand-made pottery of earlier period continued in this period but the wheel-made bright red ware represented by jars, bowls, miniature pots, vases, dishes and lamps also appeared. Some of the sherds were painted in black and carried stamp designs. Another noteworthy find was stone bowls, with sides tapering towards the bottom.

The artifacts included crude bone points, a bone handle, ring stones, stone pounders and a terracotta object. The iron was very much in use.

The grains of the previous periods continued here also. The cultivation of the rice was in full swing now.

Animal bones recovered were of cattle, sheep, goat, dog, pig, cat, fowl and rodent²⁶.

The settlements of the period were of mud bricks and mud walls with roofs covered by hay or birch bark. The

people now mostly depended on agriculture and the grains were crushed with the aid of mace heads and pounders. There were limited number of hunting tools both in stone and bone and it is obvious that the hunting was now a secondary occupation. The main economy of people was agriculture for which they wanted suitable areas which could be nearer to water, favourable for agriculture and hunting or fishing, and for other essential activities.

Period III or the post-megalithic period at Gufkral yielded dishes of Harappan shape and non-indigenous semiprecious materials like carnelian and copper beads, bangles and rings of shell, copper, iron and terracotta objects which indicate the influence of the external processes including the actual movements of the Indus valley people. Already there had been more convincing and substantial contacts with Harappans in the mature phases of Neolithic settlements both at Burzahom and Gufkral and now the present evidence shows that the later Harappans also continued their migratory movements into the valley.

Instead of mixing with the local people, these later Harappan now, as per tradition in the plains, selected low land areas. One such site is of Semthan (79°9' Long. 33°48' Lat) on the lower course of the left bank of river Jhelum about 44 kms from Srinagar in Bijbehara town in district Anantnag on Srinagar-Jammu national highway.

The Vitasta (Jhelum) makes a sharp bend near the village of Semthan and to the left of the river here rises an elevated plateau which is still known by the ancient name of Taskdar (ancient Chakradhara²⁷). It was because of its surface material recognised as a place of great archaeological importance²⁸. It is regarded as one of the oldest and important religious site of the valley²⁹. The entire belt has witnessed long but chequered phases of historical events which are mentioned by Kalhana³⁰.

Mankha³¹ Jonaraja³², Shrivara³³, Jayadratha³⁴, Hassan Shah³⁵, and the authors of Mahatmayas³⁶. In a preliminary dig in the year 1977-78, some shreds of Northern black polished ware were obtained here in a stratified context which highlighted its archaeological importance³⁷.

Judged by the exposure of the hitherto unknown discovery of NBP in the valley, the area was further probed for three consecutive seasons (1981-84) and a sequence of culture from 2700 B.P. upto the late medieval times recognized.

Period I designated as pre-NBP strata is marked by the occupational deposit of 30-45 cms at the lowest level. This consists of yellowish brown compact and sticky clay representing successive floor levels. These floor levels indicate regular building activity. The settlement pattern and the form of the houses changed in accordance with the tradition in use elsewhere in the plains. Now the house walls were built of pise and pebbles. The presence of post holes suggest that these were covered with sloping roofs laid out with hay and grass, the impressions of which were encountered in the excavations.

The pattern of cultural change, the arrival of new people or ideas is demonstrated by the repertory of pottery which has been classified into five fabrics³⁸:-

Fabric A is marked by study red ware treated with a fine slip. The colour ranges from orange red to plump red. The most striking type is the composite form of a bowl on a stand. Both the bowl and the stand are hollow. It carries an addition of a ring of a thick ledge splayed out like a dish luted around the bowl. This is typical Harappan form. Mostly this form, like other shapes, has been made on the wheel except the dish-ledge which is made by hand and then rotated on the wheel for perfecting the process of luting. Such forms bear generic relation with the late

phase of the post-Harappan pottery of Bandawali and Bara phase. Bara in particular is an assemblage with an identifiable individuality of its own which is not generally reported from other Harappan sites in India or even from Pakistan but is certainly later than the mature Harappan. The other shapes include variety of bowls, vases, vessels, flasks, jars and knobbed lids.

Fabric B is marked by thin fine red ware mostly slipped and burnished. It is generally wheel-made and the slip varies from brownish red to deep red. The common forms include vessels, vases, a variety of bowls, flasks, carinated cooking vessels having untreated and soot-marked lower body.

Fabric C is defined by thick ochrous red ware made on wheel and the shapes are represented by wide mouthed vessels, small vases and pots with globular bodies (Kashmiri *chod*). This ware is widely distributed and is generally succeeded by painted grey ware. It too as such is derivative from late Harappans. Immersed in water for a long time the ware is mostly waterlogged. Ochre coloured ware comes from sites lying in Ganga-Yamuna Doab where the area has been subjected to floods. Semthan plateau at this level must have also been subjected to floods as it formed one of the alluvial plains of river Jhelum. Because of its texture and fabric, it has been categorised as inferior Harappan. Some of the sherds of the ware carry externally incised patterns of petals, wavy, vertical and horizontal lines.

Fabric D is represented by the presence of thick grey ware. It is characterised by two distinct wares i.e., burnished ware of a thick quality and the other of an ordinary grey ware. Both the types are of very coarse fabric and of a very thick section. The clay is not well levigated. Chopped straw is mixed as temper. The common shapes are small sized vases, bowls and rimless dishes.

There is, however, no relationship with similar type of fabric encountered in the neolithic levels of Burzahom or Gufkral.

Fabric E is dull red ware, handmade, ill-fired and of crude texture. It is made of poor clay and contains stone grits. The main shapes in this ware are jars, bowls, and internally hollowed lids. Some of the sherds were found in association with the NBP ware of period II.

The ceramic cultural phase of period I at Semthan shows a remarkable continuity of sequence which by and large points to regular contacts with the people outside the valley.

The antiquities include terracotta and bone beads, copper pieces, and an iron arrow head and iron slags³⁹. The discovery of iron in this period carries special significance as in the earlier stages such finds were not reported⁴⁰. All this emphasizes inter-regional or inter-cultural contacts which further advanced in the succeeding ages. The present evidence at Semthan, therefore, points to the arrival of new set of people probably from the plains of sub-continent resulting in the close cultural affinity. This also stands substantiated by the Palaeobotanical investigations of the plant remains as well.

The identification and the study of the mud clods and the associated material from P.I. reveal the cultivated plant remains of wheat, barley and rice. Wheat and barley are found from the Neolithic to Megalithic periods at Burzahom and Gufkral. At Semthan rice is found in Period I (Post-Harappan Culture). The plant remains of rice consisted of both hulled and naked grains. Its cultivation was introduced in the valley around 3,000 B.P. because of change in the climate and subsistence pattern. Wheat and barley are winter crops. They require less water as compared to rice which is a summer crop and requires plenty of water. Excellent, pure and perennial ground-

water of the valley is a boon for its good harvest. Apparently the people of P.I. at Semthan could raise two crops in a year. Of the three cereals, largest quantity found was that of wheat, followed by barley and the rice took the third place. The frequency of wheat implies that this was the main crop. The rice culture has taken place from the plains possibly from Indo-Gangetic area along with the migration of the people⁴¹. The soil, environment or the water supply was best suited for its cultivation and in course of time it, instead of wheat, became the staple food of Kashmiris and played a key role in the growth of population. It has, however, been observed that the soil at Semthan is rich in phosphate contents in comparison to non-agricultural soil which is poor in phosphate⁴².

The pulses identified were mung (*Phaseolus aures*) and lentil (*Lens culinaris*). The endocrops included apricot (*Prunus armeniaca*) and hackberry (*celtis australis*). The wood remains were of pine (*Pinus wallichiana*), cedar (*Cedrus deodara*) and walnut (*Juglans regia*⁴³). It is evident that the climate or the vegetation in the valley has not changed appreciably in the last five thousand years except for the impact of biotic factors⁴⁴.

Period II at Semthan has an occupational deposit of 1.35 m and is marked by the presence of Northern black polished ware (NBPW) and associated red and grey wares. Important shapes are carinated or ridged, shouldered bowls, convex or straight sided dishes, carinated or rimless handis. It succeeds pre-NBP and both types of potteries were in use in the mid-Ganga valley. Its penetration into the valley in 2,500 B.P. indicates regular contacts with the people using this ware. Its lustrous surface points to technological and morphological change of the pottery as well as other associated artifacts⁴⁵.

The emergence of the distinctive ceramics in c. 500 B.C. was a major innovation of the early historical

period. From its home land in the Central Ganga plains where it was found in large numbers, it was exported to Taxila and Ujjain and further it spread to distant places like Amaravati on the Krishna river, being the southernmost point of its occurrence. Quite likely it came to Kashmir from Taxila and presence of this deposit at Semthan coincides with the extension of the Mauryan rule⁴⁶. In the middle of the first millennium B.C. the introduction or definite system of coinage accelerated the means of trade and commerce in North-west frontier province (Gandhara), Punjab⁴⁷ and now with Kashmir also. This also confirms the association of the Mauryan emperor, Ashoka with Kashmir though his presence in the valley was earlier held debatable⁴⁸. In Baramulla such pottery types collections were reported from Gantmulla, Kanishpur and other sites⁴⁹. This shows the wide distribution of NBP ware culture in the valley as well.

Settlement and Living Patterns

There was a profound change in the settlements. The people began to live in villages and their houses were clustered together with cultivable land near it. There were water ways and water channels. The rooms of the settlements were properly floored and fenced. In the limited area taken up for excavations at Semthan, mud clods were recovered which were used in making of the floors. Partially exposed rubble wall indicated the provision for a fencing. Mostly the houses were covered with wooden beams and planks as new varieties of wood species have been detected. These included elm and conifers. The roofs must have been covered with birch bark, logs of hay and small pieces of sapplings. New plants introduced were Oat (*Avena* sp.), Urad (*Phaseolus mungo*), Pea (*Pisum sativum*)⁵⁰. With such productions, the people were almost leading a prosperous life and were self-sufficient. Though the

occupants predominantly depended on agriculture but pastoral settlements must have been in use in the interior of the forests.

There was density of population during this period in the valley. Speaking about the Mauryan king, Ashoka, now archaeologically confirmed, the author of the historical chronicle, *Rajatarangini*, Kalhana writes, "That illustrious king built the town of *Srinagar* (present day summer capital of Kashmir) which was most important on account of its ninety-six lakhs of houses resplendent with wealth." At other settlements, he is also credited with the buildings of religious shrines: temples, stupas, monasteries, and chaityas near Sushkaletra (Hukhalitar), Vitastatrata etc.⁵¹ Kalhana's narrative was certain about the identity of Ashoka of the Kashmir record with the Ashoka of universal Buddhist tradition, which is now an archaeological reality. Making due allowance for the exaggeration of 96 houses existing in Srinagar alone, it has however, to be conceded that the city or as a matter of fact other places of habitation were both populous and prosperous at that time⁵². It also leaves no doubt that Indian people from other parts of the Mauryan empire would enter and settle in the valley.

The presence of the several copper coins and silver punch marked coins ascribable to this period were obtained in the course of excavations at Semthan and it leads to the conclusion that the coinage had gained wide currency in the valley during this period. This in turn must have promoted trade and even exchange of goods. The other antiquities of the period included terracotta balls, semi-precious stone beads, terracotta beads, bone points, copper and iron objects⁵³.

Indo-Greek Settlements

Greek kingdoms had already sprung up in the North-West Frontier province even during the reign of emperor Ashoka as he records his contemporary Greek rulers in

his rock edicts⁵⁴. After Ashoka or after the fall of Mauryas, north-west India was invaded by several foreign invaders which included Greeks who had been successful in forming their powerful block at Bactria, a fertile plain in northern Afghanistan beyond the Hindu Kush. Here the land had a strategic position and its fertile soil lured the nomadic tribes of Central Asia and Western imperialists to settle. The valley of Kashmir also because of its scenic beauty, natural gifts and rich produce was regarded as a coveted ground for their occupation. Their presence in the valley is upheld by Kalhana whom he mentioned them as *Mlecchas* who after having overrun the land were afterwards exterminated by Ashoka's son, Jaluka⁵⁵.

In 190 B.C., the Bactrian King Diodotus was deposed by Euthydemus and his son Demetrius conquered the Upper Kabul Valley and Gandhara, the corridor of India. Kashmir was included in his kingdom, Demetrius was a energetic and powerful ruler and under his guidance, Bactria rose to the height of her glory and was able to hold close contacts with India⁵⁶.

Semthan in particular had yielded a large number of coins of these Indo-Greek kings. One type of such coins was that of Menander, the greatest of the Indo-Greek kings. He was known as Millinda and held discussions with the learned Buddhist monk, Nagasena by name at a spot only twelve yojanas⁵⁷ from Kashmir. After that, the Greek ruler Menander became a staunch Buddhist under the influence of Nagasena. The discussions are incorporated in the Buddhist text of *Millindapanha* named after the ruler. The text gives a detailed account of the social system, trade, agriculture, popular religious practices and occupations prevailing at that time⁵⁸. In absence of any material culture the coins of the Indo-Greek rulers remained as shadowy sources so far. Now

the Semthan excavations have conclusively proved their relevance.

Period III determined as Indo-Greek occupation of its valley from 2,200 B.P. to the beginning of Christian era is characterised by a deposit of 40 cm marked by a series of floor levels. The origin of Sirkap city, one of the Indo-Greek city of Taxila in North-Western region, is attributed to Indo-Greek rulers. Here a mud rampart was raised around the city. In view of the limited areas of the dig at Semthan, no such rampart was detected. The floor levels indicate the inner upkeep of the houses. However, it appears that they adopted similar pattern of settlement already in use by locals. They were rich, prosperous and as such promoted trade to raise the economic stability of the land. This is clear from the coins obtained during the excavations and also a considerable quality of Indo-Greeks coins collected from the surface of the mound. Besides, they contributed much towards the cultural life of the people. This is evident from the bulk of terracotta finds found here which are rich in contents. A clay seal bearing an Indo-Greek deity is one such find obtained in the dig. This is presumed to be of Apollo. He was considered to be protector of flocks and cattle and the divine founder of new colonies or Hellenic settlements⁵⁹. They brought to the valley art of Gandhara which got a new impetus in the periods that followed.

The pottery used by them was more developed and sophisticated. It was thin sectioned and had pink slip. It was characterised by the frequent use of functional devices like pinched lip, spout, handle and ring or pedestal base. The striking shapes were thalis (pans), vases, vessels and goblets. A significant and an unique discovery was a pot sherd with an inscription in five letters engraved below the rim portion on the external side. It reads as 'Dhamorail' or 'Dahrmo' i.e. raja and probably refers to king

Menander who was not only a great conquerer but a zealous Buddhist. He is credited with the construction of a Vihara named after him as Milindavihara⁶⁰.

The coinage of Indo-Greeks reflect the exalted royal position and domination they exercised. It is from them that the concept of divinity of kingship was born and adopted by their successors.

Impact and Fresh Wave of Inspiration

The cultural contacts of Indo-Greeks for nearly two centuries was considerable and made the life of Kashmiris delightful. They always remained adventurous and their tenacity and talent proved profitable for the people of the land. They introduced Indo-Hellenistic art in the valley. In fact world famous architectural and sculptural achievement of Kashmiris is their creation. They brought about a cultural admixture and a new trend in the economic life of the people. There was abnormal increase and surplus in cultivation, in the development of trade, commerce and trade routes. They gave to the valley much more than they took from here.

Indo-Greeks of Bactria received a setback by the frequent movements and intrusion of different races. This ultimately enfeebled their rising power and dominating force not only in their native land but in the valley as well.

Notes and References

1. N.R. Banerjee, *The Iron Age in India*, Delhi, 1965, pp. 95-96.
2. R. Ghirshman, *Iran* (Penguin Books), Middle Sex, 1954, pp. 60-106.
3. A.K. Sharma, Neolithic Gufkral, *Central Asia and Western Himalaya—A forgotten Link*, (ed.), G.M. Buth, Jodhpur, 1986, p. 16.
4. D.K. Chakrabarti, 'The Issues of the Indian Iron Age' *Recent Advances in Indian Archaeology, Proceeding of the Seminar*, 1983, (eds.) S.B. Deo and K. Paddaya, Poona, 1985, p. 75.
5. A.K. Sharma, *op. cit.*, p. 16 and R.C. Gaur on, The Issue of the Indian Iron Age, by Chakrabarti, p. 79.
6. N.R. Banerjee, Comments on Chakrabarti's article, Issue of the Indian Iron Age, p. 77.
7. R.C. Gaur, Comments on above, p. 81.
8. M. Rafique Mughal, 'The Development of Proto-historic Research in Pakistan, Paper presented at South Asian Archaeological Conferences held in New Delhi, 1986, p. 13.
9. N.R. Banerjee, *op. cit.*, p. 138.
10. S.L. Shali, *Kashmir: History and Archaeology Through the Ages*, New Delhi, 1993, p. 101.
11. A.H. Francke, *ASI, Annual Report*, 1909-10, p. 104.
12. Asha Henly, 'Kists in Kashmir', in *Times of India Magazine*, Dec. 2, 1979.
13. N.R. Banerjee, *op. cit.*, p. 56.
14. S.B. Deo, 'Megaliths: Their Culture, Ecology, Economy and Technology, *Recent Advances in Indian Archaeology, Proceedings of the Seminar*, 1983, (eds.), S.B. Deo, and K.P. Paddaya, Poona, 1985, p. 91.
15. A. Ghosh, *Encyclopaedia of Indian Archaeology*, Vol. I, New Delhi, 1989, p. 116.
16. Josef Wolf, *The Dawn of Man*, edited and adapted by Peter Andrews, Rebin Harva, Colin Ridler and Christopher Stringer, Great Britain, 1978, p. 212.

17. Edward Burnett Taylor, *Religion in Primitive Culture*, New York, 1958, p. 58.
18. John Marshall, *Mohen-jo-daro and Indus Civilization* (Reprint), Vol. I, Delhi, 1973, pp. 58-59.
19. Phillip Van Doren Stern, *Prehistoric Europe*, Great Britain, 1970, pp. 247-58.
20. Samudra Gupta Kashyap, 'Go to Shillong, not Gaul, for menhirs' *Indian Express*, New Delhi, Sept. 24, 1993. p. 4.
21. S.S. Saar, *Ancestors of Kashmir*, New Delhi, 1992, p. 41.
22. A.K. Sharma, Excavators at Gufkral-1981, in *Puratattva*, Number 11, 1979-80, pp. 24-25.
23. R.S. Bisht 'Reflection on Burzahom and Semthan Excavations and later Mythological periods in Kashmir valley, in *Central Asia and Western Himalaya, A Forgotten Link*, (ed.), G.M. Buth, Jodhpur, 1986, p. 55.
24. ASI, *Archaeology—A Review*, 1961-62, p. 17.
25. R.S. Bisht, *op. cit.*, p. 58.
26. A.K. Sharma, *Ibid.*
27. M.A. Stein, *Rajatarangini*(tr), Vol. II, p. 461.
28. G. Buhler, 'Report of a Tour in Search of Sanskrit Manuscripts made in Kashmir and Central India, in *JBBRAS* (Extra number), Bombay, 1877, p. 18.
29. *NP Verse*, 1170.
30. M.A. Stein, *Ibid.*
31. *Srikanthacharita*. III. 12.
32. *Divitiya Rajatarangini*, (ed.), P. Paterson, Bombay, 1896.
33. *Jaina Rajatarangini*, Calcutta, 1835.
34. *Haricharitchintamani*, VIII. sqq.
35. *Tarikh-Hassan*, Vol. I (ed.), Sahibzade Hassan Shah, Srinagar, 1954, p. 254.
36. 'Mahatmayas' provide details of the legends relating to individual pilgrimage of a sacred place, the spiritual and other benefits to be derived from its visit and special rites to be performed enroute to the holy place. Bijibehara (ancient Vijayeshwara) has been a cultural centre from

ancient times. The details of the holy places is recorded in its Mahatmayas entitled 'Vijayevaramahatmya. Also see Mohan Lal 'Ash's book (Urdu edition) entitled 'Bijibehara', Delhi, 1988.

37. ASI, *Indian Archaeology—A Review*, 1978-79. p. 70.
38. *Ibid*, 1980-81, p. 21.
39. G.S. Gaur, Semthan Excavations, in *Archaeology and History (Ghosh Memorial)*, (ed.), B.M. Pande and B.D. Chattopandhya, Vol. I, New Delhi, 1987, p. 328.
40. G.M. Buth, R.S. Bisht, C.S. Gaur, 'Investigation of Palaeoethnobotanical Remains from Semthan, Kashmir' in *ME*, No. VI, 1982, p. 41.
41. *Ibid*, p. 43.
42. ASI, *Indian Archaeology—A Review* 1979-80, p. 32.
43. G.S. Gaur, *op. cit.*, p. 331.
44. Farooq A. Lone, Maqsoods Khan, and G.M. Buth, 'Five thousand years of vegetational changes in Kashmir the impact of biotic factor', in *Palaeo-climatic and Palaeoenvironmental changes in Asia, during the last 4 million years*, New Delhi, 1988, p. 1966.
45. J.N. Pal, *Archaeology of Southern Uttar Pradesh, Ceramic Industries of Northern Vindhya*, Allahabad, 1986, pp. 22-23.
46. R.S. Bisht, *op. cit.*, p. 55.
47. Bridget and Raymond Allchin, *The Birth of Indian Civilization*, England, 1968, p. 330.
48. R.S. Bisht, *Ibid*.
49. ASI, *Indian Archaeology—A Review*, 1981-82, p. 16.
50. G.S. Gaur, *Ibid*.
51. M.A. Stein, RT (tr.), Vol. I, pp. 19-20.
52. Debala Mitra, *Buddhist Monuments*, Calcutta, 1971, and *Pandurethan, Avantipur and Martand*, New Delhi, 1977, p. 10.
53. G.S. Gaur, *Ibid*.
54. A. Ghosh, *The City in Early Historical India*, Simla, 1973, p. 12.

55. M.A. Stein, *op, cit.*, p. 115.
56. Vidya Dhar Mahajan, *Ancient India*, Delhi, 1980, p. 277.
57. Yojana is a measure of distance, Kashmir Kruh (Kos) is equal to one and a half mile. One yojana is about 4 Krosas. Accordingly a yojana comes to about 6 miles.
58. V. Trenckner, *Milinadapanha* (ed.), Royal Asiatic Society, London, 1928, pp. 82-83, 420.
59. R.C. Chattopadhyaya, *Coins and Icons, A Study of Myths, and Symbols in Indian Numismatic ART*, Calcutta, 1977, p. 105.
60. R.C. Mujamdar, *An Advanced History of India*, London, 1953, p. 277.

Cultural Expansions

Historical Perspective

This period ranging from 2,000 B.P. to 1,500 B.P. witnessed an unprecedented flow of immigrants because of favourable climatic conditions and ecological stability. The atmosphere was congenial. There was no snowfall of long durations, no erosion, no land slides, no floods and no blockade of routes or passes. As a result of this, there was intensive activity by way of mass migration of foreign people. The valley as such during this period of 500 years experienced rapid developments in trade, agriculture, culture, art and architecture.

The growing glory of Indo-Greeks in their own kingdom of Bactria was greatly hampered by the attacks of Parthians, Scythians or Sakas, Hunas, Yue-Chi and other nomadic tribes of Central Asia and adjacent countries. The climatic stability coupled with the scenic beauty of Kashmir attracted more and more foreign elements. The effective barriers of mountains and inhospitable passes did not stand in the way of cultural contacts of the people of Kashmir with other regions. The advent of multi-national tribes into the valley resulted in the outstanding achievement in the field of art and architecture as well.

In Central Asia itself by 2200 B.P. there was great turmoil on account of severe drought. The tribes were fighting for their survival. There was keen competition

for possession of more pasture lands. Both Bactria and the valley of Kashmir provided suitable ground for subsistence of their cattle and also for themselves. The movement of these tribes was, however, stopped towards the east by the Chinese emperor Huang ti, who built a true defensive shield in the form of Great Wall in 2300 B.P. They were, therefore, forced to migrate either to south or west¹.

The Greeks had always remained adventurous traders. The Greek colonies were scattered on all the shores of Mediterranean, Babylonian and also in the Indo-Greek kingdoms of North-west India, Afghanistan and Central Asia. The Parthian king, Mithradates (2171 B.P.-2138 B.P) attacked their kingdom at Bactria². Further they received the setback by the attacks of Sakas followed by Yue-Chi tribe. The Yue-Chi were nomads but were good horsemen. The Sakas too on their part were nomadic tribes who originally belonged to Central Asia. In about 2165 B.P. they were turned out of their original home by the Yue-Chi. They migrated to the south-west and settled in Bactria and other adjacent areas. Soon after, the Yue-Chi people drove them out from Bactria and thereby forcing them to scatter in other kingdoms. Some of the Sakas could not move and were ultimately absorbed in the Yue-Chi horde³. Yue-Chi after their migration from their original home beyond the north-western frontiers of China, subjugated the already strife-torn people of Bactria who were peace-loving but were weak enough to resist the onslaughts of Yue-Chi⁴.

The Yue-Chi after settling down in Tahia (Bactria) became powerful and yielded great supremacy over the adjoining regions. They divided their kingdom into five principalities. One of these principalities was named Kuei-Shuang, identified as Kushana⁵. The prince of this Kushana territory is referred to as Kieo-tsieous Kio

(Kujala Kadaphises). He attacked and subdued the other four principalities and acclaimed himself as the sole master of all these countries. Subsequently his own son Wima Kadaphises conquered Tien-Cha, i.e. India. Now all the countries including India were designated as Kuei-Shuang or Kushana and their king as Kieo-Tsieu-Kio (Kushana). Even then the Chinese continued to call them as the Yue-Chi and preserving thus their old tradition⁶.

The founder of the Kushana emperor Kujala Kadaphises had maternal relationship with Greeks. The coins were jointly issued with Hermaeus, the last representative of Indo-Greeks⁷. In the first instance, the coins of Hermaeus were issued in conjunction with the king of Kushanas, Kujala Kadaphises but subsequently the name of Hermaeus disappeared and the former, it is evident, reigned alone.

Kujala Kadaphises and his immediate successors had extensive trade relations with Rome and China. Not only this, Kujala Kadaphises, it appears, had diplomatic relations with Romans as on his coins the bust of Augustus is also impinged⁸. He issued only copper coins and no gold coins. On his coins he used the title of 'Yavuga' (Chief), Maharaja, Rajatiraja (the great king, the king of kings) and also of 'Sachadharma' (firm in the True Faith). This shows the place of eminence to which he rose.

Kujala Kadaphises was succeeded by his son Kadaphises II also known as Wima Kadaphises. He introduced both gold and copper coins. He brought his empire on the international format and gave a great fillip for successful introduction of commercial and cultural contacts with different regions of his vast empire which extended from Bactria to Ghazipur (U.P) and from Kashmir to Saurashtra. A large number of his coins have been found at Begram (25 miles off Kabul, Afghanistan)⁹,

Peshawar¹⁰, Taxila¹¹, Mathura¹², Gopalpura Stupa¹³, Basrah, Bhatta and Khasia¹⁴, Indore¹⁵, Varanasi¹⁶ and adjoining area of Ghazipur and Saurashtra (Gujarat)¹⁷. In Kashmir valley now, these have been found at village Tarakpur on Sopore-Bandipur link road (Baramulla) overlooking the Wular lake¹⁸. This route has played a vital role in maintaining the cultural and trade links with the Darad territory, the frontier region of the valley and further with the Central Asia¹⁹. In Ladakh, a frontier region of Kashmir, his inscription was discovered at Khalatse bridge in which his name was recorded as, "Maharaja Uvima Kavithisasa"²⁰. This find points out that Kushana king's sway extended over the western part of Ladakh as well. This again was the ancient route which passed through Leh, the capital of Ladakh to Tibet and then to Central Asia.

Wima Kadaphises was an ardent worshipper of Shiva. His coins bear the figure of Shiva or his favourite companion Nandi. In one of his silver coins found at Sirkap in Taxila, his title is recorded which refers him as Great king, king of kings, the Kushana chief²¹.

Wima Kadaphises was succeeded by Kanishka, Vajheshka or Vasishka, Huvishka, Vasudeva and others²².

The authentic record of Kushanas is referred to by Kalhana in his monumental work *Rajatarangini* (mid 12th Century A.D.). He mentions in it about the joint rule in Kashmir of the three kings of Turushka race named in the serial order of Hushka (probably Huvishka), Jushka (probably Vajheshka or Vashiska) and Kanishka. All the three are credited with the foundations of many Buddhist settlements. The three principal cities are still named after them. Huvishka's is Hushkapura (modern Ushkar, inside Baramulla town), Jushkapura (modern Zakur, 2 Kms above the Kashmir University Campus) in Srinagar is still remembered as the ancient city of Juskha or of

Vashishka, and Kanishkapura (modern Kanishpur) near Baramulla on Srinagar-Baramulla national highway, is the chief city laid out by Kanishka²³.

Kalhana has here confused the genealogy of Kushana kings while referring to the joint rule of these kings over Kashmir. It is just the real order of succession. It should have been Kanishka, Vaishishka or Jushka and then Huvishka. Kanishka was the lineal descendent of Wima Kadaphises. While discussing in detail the Kushana genealogy, it has been maintained that Kanishka was the father of Vashishka or Jushka and that of Huvishka²⁴. This order of Kushana rulers to a great extent has been confirmed by the archaeological records as well.

There is a definite evidence from the excavations from Taxila that Kujala Kadaphises and Wima Kadaphises preceded Kanishka and his successors²⁵. So also the excavations at Begram (ancient Kapisa) in Afghanistan revealed the first and the earliest stratum as of pre-Kushana period marked by Graeco-Bactrian, Scythian, Parthian groups and that of the first two kings of Kushana family viz., Kujala Kadaphises and Wima Kadaphises. The second stratum is marked by the coins of Kanishka, Huvishka and Vasudeva²⁶. Jushka remains still to be identified.

The Kushanas on the whole were most adventurous people. There is no mention in the literary records of Kujala or Wima Kadaphises having reigned over Kashmir but in the recent past the coins of Kujala Kadaphises have been obtained in the valley which now confirms that the valley was under the control of Kushanas even before the advent of Kanishka²⁷.

By 1800 B.P., the climate of the valley was more temperate and hospitable for the thriving of human civilization. Besides, the physiography of the land, plentiful of water supply, rich soil and enhancing climatic conditions

brought about a sudden increase in the population and settlements in the valley. There were now wider contacts and sizeable areas of Central Asia, Afghanistan, Northern India including Kashmir were united. There were intensive cultural, economical and political developments during this period. However, the Kushana empire received its maximum extension and patronage under the able and dynamic rule of Kanishka.

Kanishka occupies a unique position in the history of India. He distinguished himself as a great warrior, a successful monarch in building of his empire and admirably a great patron of art and learning. The valley of Kashmir also reached the pinnacle of its glory under the patronage of this powerful ruler. Being an ambitious ruler, he was keen to extend the boundaries of his already existing mighty empire. He included in it the Punjab and the western oasis of Tarim basin (Kashgar, Yarkand, Khotan etc.)²⁸. The extensive limits of his empire remained strong and united because of his will-power, liberal nature and political sagacity. It almost included all the major junctions of the trans-continental trade routes besides the high mountain pasture lands of Kashmir.

Kanishka became an ardent Buddhist at an early stage of his reign but prior to his conversion to this faith or even after, he had a eclectic frame of mind. He revered the gods of other religions with the same devotion as he cared for the Buddhist faith. His coins frequently appear with Iranian, Greek, Brahmanical and Buddhist deities. His liberal views are evident by the fact that though being a Buddhist, he continued to worship at the fire-alter throughout his reign. He in this way venerated the religious tradition of the people residing in his vast empire which belonged to different races and tribes.

Kanishka, even as a firm believer in Buddhism, was confused with the growing conflicting interpretations of

the Buddhist scriptures by different scholars of the faith. He, therefore, wanted to recognize the followers of different schools of Buddhism and thereby adopt a uniform code of conduct according to *Sarvastivada* (all that exists) school which was at that time dominant in Kashmir. In order to achieve this mission, he summoned a religious council at a well developed settlement of the times referred to as *Kundalvana Vihara* in Kashmir. The valley was selected for this august assembly as Kushana kings used to come over here often so as to escape the dreaded heat and dust of Indian plains, the practice whereof was followed by later rulers especially the Mughals²⁹. In the council, only such the Arhats (saints) well versed in *Tripitaka*³⁰ and *Five sciences*³¹ were invited to attend. This council was held under the presidentship of Vasumitra and another great Buddhist scholar acted as its Vice-president. There were many other scholars who participated in the deliberations some of whom lived in Kashmir right from the time of Kanishka³². The splendid contribution of the council was that the discourses were composed after proper examination of the texts of different schools. A new line of approach was issued in the development of Buddhism called *Mahayana* (Maha means true or great and Yana a way) against the previous school of *Hinayana* (little way). Now the emphasis was laid on the worship of Buddha and the Bodhisattvas. It became a wide spread creed in Middle Asia, western countries and in the far east countries. However, the council settled the dispute between the then orthodox eighteen schools of Buddhism and the final decisions were engraved on copper plates enclosed in stone boxes. These were then sealed, placed under a stupa specially built for the purpose. These are yet to see the light of the day as the ground work in some of the newly explored sites is yet to be taken up. A detailed probing in some of the known Buddhist sites in the valley is also the need of the hour.

It goes without saying that Kanishka's approach to Buddhism and his substantial contribution in convening the conference in Kashmir led to the globalisation of Buddhism. He must have convened this grand conference after a considerable period of his accession to the throne when he was at the helm of affairs and exercised supreme authority in his empire.

Various theories have been propounded regarding the actual data of Kanishka's accession to the throne. The earliest data has been put at 78 A.D. with the introduction of Saka era³³. Some have placed it at 120 A.D.³⁴, 125 A.D.³⁵, 128-129 A.D.³⁶, 134 A.D.³⁷, 144 A.D.³⁸, 150 A.D.³⁹ and so on. However, the beginning of the first quarter of the second Century A.D. for convening the religious conference carries much weight. This data is justified on the exposure of dia-pebble construction of Buddhist settlement in the valley, the style of which have come from the excavations of Chir Stupa (Taxila) ascribable to second century A.D.⁴⁰.

Multi-dimensional aspect of Kanishka's calibre is reflected in his coins which radiate a spirit of liberal movements among the people having economic stability. He issued both gold and copper coins. In the coins found in the valley the king on the obverse side is shown bearded, standing to the left, wearing peaked helmet, long tunic, trousers and heavy padded boots. He is shown on an altar holding long spear in left hand. Below, it is the Greek legend recording his title as *Shanonano Shao Kaneshki Koshano*. On the reverse is shown crescented male figure of moon-god, radiate, filleted sceptre in his left hand. Elsewhere, in his coins, he is generally represented by his bust but in his rare copper coins, he is shown seated on the throne⁴¹. Even near the altar, he is accompanied by his weapons like elephant goad, a spear bound with a fillet or by a trident. This shows that being a devoted Buddhist, he never remained weak or lazy but

remained vigilant throughout his life. On the coins also, the depiction of Greek gods like Helios, Nana, Salene or Selene, of Iranian like Mao, Pharro etc. and of Indian like Shiva or Buddha shows his tolerant attitude towards other religions. The worship of altar was common both to Iranians and Indians. All this shows the combination of syncretism was strictly followed by him. This tradition was continued by his successors as well.

King Kanishka used mostly Greek script on his coins as this script was understood by most of the people residing in his vast empire. At the same time Kharoshti was not discarded. This script was used in the valley and in the adjacent regions. In the valley, the terracotta tiles excavated from the Buddhist establishments at Harwan and other places invariably bear Kharoshti numerals. So also the portraits of Kushana emperors like Kadaphises, Kanishka and Huvishka carved on a rock at Hunza, now a Pakistan held territory, carry Kharoshti inscriptions⁴².

In the valley, Kanishka's coins have come from many of the Buddhist settlements. Recently a hoard of coins have been collected from the village of Maidan Chogul of Tehsil Handwara, Kupwara. A large collection of gold coins from the coin cabinet of Sri Pratap Singh Museum, Srinagar have been identified to be of Kanishka, and his successor Huvishka⁴³. Besides Kanishka, Huvishka's reign was also a glorious period. Apart from laying out the foundation of his town named after him as Huvinshkapura in Baramulla, he built a vihara for Buddhist monks at Mathura also.⁴⁴ This shows his supermacy as a king.

It was during the reign of Vasudeva that the power of Kushanas was reduced. The territorial limits shrank. However, the disintegration of the vast empire of Kushanas was not abrupt but gradual. The growing supermacy of Sassanians was even acknowledged by the later Kushana kings whose power was further declined by the repeated

revolts of the Nagas, the Yaudheyas, Malavas and Kunindas. These later Kushanas were called Kidarites (Chi-to-lo)⁴⁵. The leader of this tribe was Kidra who was originally a Sassanian feudatory. The Kidaras ruled over the regions which had already been named after Kushanas. They were also called as little Yue-Chi. They fully integrated themselves into the lives of their contemporaries of their adaptive countries. Compared to the gold coins of Kanishka, Huvishka and Vasudeva, their gold coins were in much debased form indicative of loss of prestige. The coinage of Kidaras, however, followed closely the Imperial Kushana type, the exception being that the word Kidara is written in Brahmi characters. Their coins were subsequently merged into Kashmir coinage⁴⁶. They gradually extended their sway over Punjab, North-West Frontier province and Kashmir as is evident from the large number of their coins found in these countries.

. On the whole during Kushana period, Kashmir developed intense international contacts which made it a world-famous centre of Buddhist religion and literature. The cultural and religious importance grew tremendously. The people were both of orthodoxy and *hetrodoxy* traditions.

Settlement Pattern

The early pattern of Kushana settlements in the valley has been revealed in the excavations at Harwan (anc. *Shadarhadvana*, the grove or forest of six Arhats or saints) at a distance of 15 kms north-east of capital city of Srinagar. The antiquity of the place and its geographical situation suggests that the people lived close to the forests and covered their settlements with forest products like branches of trees, bark and dry grass. The settlement here is laid out in terraces over-looking the transparent water of Dal Lake and the fertile valley below. The entire

area is surrounded by a chain of snow-peaked mountain ranges.

The building construction here is demarcated in three styles marked by the pebble, the diaper-pebble and the diaper rubble. The earliest and the first phase was purely of pebble style which is the first of the series of the constructional activity in the valley during this period. These pebbles each of which is 1" to 2" in diameter are easily available in the nearby streams. These were neatly embedded in mud walls of the settlements and when completed these give a charming look to the constructions both inside and outside of complex. This pattern was followed by diaper-pebble style. The intention was to give more strength to the settlements. The tiny pebbles were reinforced by inserting medium-sized irregular stones at intervals. In similar settlements elsewhere these were found more durable. Such parallel constructions have been found at Taxila⁴⁷. At Harwan, both the styles of constructions are found in close proximity to each other. While as an isolated patch of a monastery in pure pebble style was exposed in the middle terrace of the settlement, an apsidal temple in diaper pebble style on the next higher terrace was also laid open. This temple is apsidal on the exterior and circular internally and is preceded by an oblong hall in the front. Similar in plan and dimensions, such apsidal structures stand unearthed in the Buddhist settlements of Taxila as well⁴⁸. This is the distinctive form of Buddhist temple which is widely distributed in the north-west region of the sub-continent and reflects a brisk movement of Buddhists during the early years of Christian era. No circumbulatory passages was earlier reported but in fresh probings during 1979-80, the presence of such a passage was also located. The unique and significant addition of this structure here is that it was surrounded by a spacious courtyard laid over by moulded terracotta

tiles decorated with different motifs depicting diverse cultural impacts. Similar such designed tiles were systematically laid out at the back of the paved courtyard and the apsidal temple.

Another structure in diaper pebble style is exposed on the lowest terrace of these ruins which has been named as the 'Prayer hall'. It is rectangular in plan with no apsidal end. In the series, more precisely of the same workmanship is a solitary wall which must have been a part of a monastery. In between the prayer hall and this part of the structure is the foundation of a triple based stupa and its enclosure built of untrimmed stones with the empty spaces filled by smaller stones designed as diaper rubble style. Such rough and crude method of construction without any binding material is definitely of a later date. This is confirmed by the recent archaeological operations at the site.

The area in and around the rectangular prayer hall at the lowest terrace was further probed in recent years. In contrast to the excessively plain treatment of the hall, new facets of the associated structures came to the surface which make it out that the original structure instead of a simple prayer hall was actually an enlarged and elaborated monastic settlement. The architectural composition of the fresh structures brought to light have added a graceful appearance of more inspiring proportions and character. The exposed walls of the hall on the western and northern sides were observed to continue further deep into the ground level wrongly proposed so far to be the original level of the terrace⁴⁹. The wall on the western side was running in a sloping pattern in keeping with the terrace formation and it was noticed in the north-western corner that the wall was going down by a metre or more and even continues on its southern side as well. On the eastern side, the diaper pebble wall below the ground

also continued without any break even in the middle of the wall on this side contrary to the presumption that the gap maintained here during the earlier excavations was the entrance to the exposed prayer hall. The more interesting feature was the exposure of residential cells in and around the prayer hall. One such cell in the north-west corner measured 2.30 m x 1.20 m. Such cells now continued uninterruptedly almost on all the sides⁵⁰. Their presence, though previously neglected, imply a brilliant archaeological achievement in the valley so far as the set up of Kushana settlement in the valley is concerned. More surprising evidence was the continuation on the west of the side wall of a cell going under the diaper rubble enclosure wall of the triple based stupa with its destroyed portion yielding ash and charcoal. The excavations as such revealed here that the original structures of cells, chapels or the composite form of monastic settlement was destroyed by a conflagration most probably on the advent of Hunas who were anti-Buddhists⁵¹.

The Kushana settlements in diaper pebble style were noticed in the trial diggings at Takiya Bala, 33 kms from Srinagar in Trial Tehsil, district Pulwama⁵² and at Huthmura (anc. Shakta Matha) at a distance of 64 kms from Srinagar on Srinagar-Pahalgam road, district Anantnag⁵³. Such identical settlements imply the flourishing stage of Kushana settlements in the valley in diaper pebble constructions.

The middle of 1500 B.P. epitomized the full horror of barbarian Hunas. They were redoubtable warriors and moved from place to place along with their tents and women folk in search of water or pastures for their camels and horses. In view of their warlike qualities and nomadic way of life, they indulged in ruthless killings of innocent people, looting and plunder of towns, cities,

flourishing settlements and religious establishments. They came into India during the reign of Skanda Gupta (455-467 A.D.) with fire, loot and massacre. They obliterated the civilization and turned the cultivated fields back to pastures.

The Hunas on their entry into the valley after about a century or so destroyed the peaceful life of the people. The economic activity was hampered by political disorder and social upheavals. Communication with the other regions broke down. The settlements were faced with ruin.

In variance with the accepted chronology of India, the Huna Chiefs, Toramana and his son Mihirkula are referred in the history of Kashmir, *Rajatarangini*, by Kalahana but of these only Mihirkula is in fact represented in India tradition. After his defeat at the hands of Gupta emperor, Baladitya, king of Magadha, sought and obtained asylum in Kashmir. Soon by his wit and cleverness, he seized the throne of the valley. He is depicted as a tyrant and took delight in the acts of brutality. As in the Gandhara region, Kushana settlements and religious establishments received a great setback. Monasteries and stupas were burnt down. At Harwan itself, it is evident from the *charcoaly* layer resting over the original wall of diaper pebble which in turn stands superimposed by diaper rubble wall built by the later Kushanas or Kidara Kushanas after passing of Huna's domination. Both the religious and residential establishments were constructed in an altogether changed pattern involving less labour but swift completion.

Immediately after the threatening pressure of the Hunas, the later Kushanas had their settlements built in untrimmed stones with inter-spaces filled with small pebbles, a style designated as diaper rubble masonry. No cementing material was utilised. In this style was built a stupa, square in plan and with its base in three tiers. It was approached by a flight of steps and the whole

complex stood within an open quadrangle being the typical feature of stupa courts of Gandhara. The superstructure has altogether been destroyed but it can be reconstructed from small terracotta plaques found in the debris nearby. On these are depicted the shape and the character of the stupa. The stupa on the plaques is shown with a triple base and three flights of steps being in line with one another. After approaching the top basement through the steps, it had a faceted drum relieved with friezes and mouldings with a low cylindrical dome surmounted by a series of diminishing umbrellas one over the other numbering thirteen, the topmost one ends in a pointed finial from which some waving streamers are issued. On the uppermost terrace of the replica two columns crowned by lions are also found. The great size of the superstructure of the stupa could have been supported by a number of sloping struts of wood. The miniature replica had a Buddhist creed engraved on it in Brahmi characters of about 4th-5th Century A.D. A copper coin of Toramana (5th century A.D.) was found under the foundation of the stupa which makes it out that it came up over the destroyed structure of diaper pebble construction of the earlier stage.

To the extreme west of the stupa, is a residential settlement built in the diaper rubble pattern. It is represented by a set of four rooms on either side separated by long corridor in the centre. The flight of steps have been provided on the east and face to the stupa. Such arrangements in mud or pebbles combined with ashlar to rubble walls are like a regional variation of the type of diaper masonry universally employed in Gandhara⁵⁴. In and around the ancient settlements, the present day enclosure walls of the houses are still built in diaper rubble pattern in the interior of Harwan vicinity.

Closely associated with the wide range of these settlements interesting building activity is represented in the excavations at Semthan. It is marked by diaper pebble rubble and mud brick construction with floor levels belonging to 1st century to 5th-6th Century A.D. These have been attributed to Kushanas, Kidra Kushanas and even some evidences of Hunas have also been found⁵⁵.

The Kidaras were virtually the rulers of the land after the imperial Kushanas. The copper coins of Hunas struck by Toramana were in circulation for a very long period extending upto Muslim period. Even if they, especially Mihirakula, exercised his sway over the valley, the supremacy of Kidaras did not vanish altogether. The occurrence of word *Kidara* on his or their coins is a testimony to this. In their debased gold coins, Kidaras depicted Brahmanical deities. On the obverse, the king was shown in a standing gesture and on the reverse seated goddess was shown with word 'Kidara' written in late Gupta characters. In the valley such type of coinage was used till late medieval period⁵⁶. The Hunas too, though anti-Buddhists, were ardent devotees of Brahmanical deities. Goddess Lakshmi considered as a symbol of fertility, plenty, fortune and luck is depicted on their coins found at Harwan and elsewhere in the valley.

Ceramic Evidences

Variance in ceramic productions portray two distinct phases of settlement pattern. The first and the earlier phase is distinguished by coarse to fine red ware. The ingredients are profusely used in case of coarse variety. The fine red ware is coated with the red slip. The important shapes are bowls, long-necked jars or vessels, internally hollow, lid cum dishes with out-turned rims, jars with out-turned horizontally splayed put rims, spherical bodied and round based pots and wide mouthed incense burners

besides small wine cups. In the next stage, the pottery is of bright red slip with characteristic shapes of bowls having tapering sides and footed bases, variety of goblets with round bases, basins with out-turned rims miniature and huge storage pots having spherical body and round bases. The huge quantity of pottery indicates the flourishing and well expanded settlements.

Expansion of Settlements

The growth, rise and the emergence of wide range of settlements of the period indicate the novel pattern of expansion and movement of the people. These have been identified on the grounds of uniform structural or antiquarian remains or other related cultural assemblages. As a result of excavations at Semthan, a village about 44 kms from Srinagar on Srinagar-Jammu national highway in Anantnag district has in particular after Harwan provided a reliable data on the settlement pattern of Kushanas. Besides, such settlements have been recognized at Huthmura, Hoi Nar, Lidroo, Dani Pather, Yaren Yander, Gauder Nakh, Wangdor in and around Pahalgam, district Anantnag⁵⁷. Ahan (Sumbal), Baba Khaipur Kalampora, Tapar, Singhpur, Kanishpur, Kitshom, Malapur, Drangbal, Kaneshpur, Ushkur (anc. Huvishkapura), Khadanyar, Zainpur, Zandafaran, Balkot, Dowarah, Gingal, Manjgiran, Naushara, Pahlipura, Paran Pilam, Shahkot, Tathmulla, Buniyar, Dethamandir, Isham, Mahura, Salamabad, Silikot, Urusa (Uri), Gauntmulla in Baramulla district⁵⁸, Tukroo, Tengwani, Takiya Balla, Kralachak in Pulwama district, Pandrethan and Cantonement area, Soura⁵⁹, Amritbawan (Anta Bawan), Zabarwan, Back of Shalimar Garden, Zakur, Harwan in Srinagar district, Hukhliter (anc. Shuskaletra) in Badgam district and Chogul Maidan (Handwara) in district Kupwara⁶⁰. Archaeological research is day in and day out still unveiling the traces of

such settlements in the valley which indicate the prosperity and the flourishing cultural upliftment of the people of the valley during this period.

In general, the Kushanas selected their settlements on the higher plateaus in order to save these from floods. Their super structures were of timber which were light in weight but at the same time the houses being in close proximity to forests, were tightly secured and safe against violent winds which often blow on such high altitudes. Hence forests gave them safety cover.

Social Structure

The Kushana settlements represent a varied range of activities on different fronts. The social structure and the economic stability depended on trade and rapprochement of cultural ties with neighbouring communities. A sufficient number of sites indicates the pattern of settlement and the range of activities of a society. The members of the society were rich as well as poor. The rich lived a life of luxury, wore ornaments, fine clothes, used sewn and closely fitted garments as to withstand the cold climate of the land. At times they indulged in drinking, gambling and dancing. Highly placed people wore open-fronted long coats reaching beneath their knees and tight trousers. Similarly the women folk of well-to-do-families wore closely fitted frocks, skirts with scarps, transparent sari with uniform folds and had beautifully arranged hairs. They did not use any type of veil. The dancers wore large ear-rings and were dressed in loose robes and trousers. A long scarf stretched at the back was held by two hands in a pose befitting their occupation. The upraised right arm was decorated with a pile of bangles. Both the robes and scarf have graceful folds.

The poor people male or female did not use upper garments. These were engaged for the upkeep of monasteries

and settlements. These included labourers engaged for gathering of flowers, fruits, water from far away ponds or lakes and wood from the forests, bards, guilds, weavers, bow manufacturers, fighting champions, potters etc. Others who mattered in the society were traders, merchants, horse riders, archers, musicians, monks and literary figures.

The settlements were surrounded by ponds and lakes. This is evident from the large number of lotus and petal motifs on the terracotta tiles that have been encountered from various settlements. The valley as a whole was an excellent breeding ground for animals and birds. There was warm temperate climate as a result of which animals like horses and elephants could live in the valley. The deer was a favourite game animal. The more notable birds were Kingfisher, Whistling Thrush, Chakor, Nilakanth, Snowcocks, Monals and several varieties of pheasants, Partridge, Parrots and Orioles. The water animals included Otter, Pangoline, Fish, Swan and varieties of Duck.

The people enjoyed many types of amusements like cock fighting, hunting on horseback, chasing a deer, bull or ram fighting etc.

The sad and deplorable scene of starving people is witnessed from a number of terracotta tiles encountered in excavations at Harwan. These look naked, bearded and lean hermits. Against this, the depiction of amorous couples, dancing women and bands of musicians on similar tiles from there reflect a diverse system of subsistence pattern of the society. The people carried varied types of occupations.

Subsistence Pattern

The Kushanas in the valley had multi-dimensional subsistence pattern. Their main occupation was agriculture,

cattle rearing, priestly functions, teaching profession, trade and crafts.

The people had access to the natural resources and favourable ecological settings, they could easily adjust to environmental patterns. They could partly meet their demands from the forest products and partly by leading a hunting and gathering way of life. The soil in plains was alluvial, good for cultivation and for manufacturing of pottery, terracotta tiles and figurines.

The land was fertile and there was no dearth of water. The people were now accustomed to *dhanya* or rice for the growth of which both the fertility of the land and the abundance of water were pre-requisites. Wheat and barley were also grown besides some varieties of pulses. Flowers and fruits were produced in abundance. Among the fruits grape or *Draksa* was the principal crop. The grapes were grown almost by the majority of the people. Their cultivation flourished so much that even the birds cherished the vine bunches on the trees as is evident from a motif on a terracotta tile excavated from Huthmura, a Buddhist site near Bumazu cave in district Anantnag. Apart from being the most common and delicious fruit, its surplus production was utilised for brewing of the wine which was exported to neighbouring regions from here. Wool from goats and sheep was considered superior in quality and after being woven, it turned fine and soft and was a prized quality for clothing. The people cultivated costus (Skt. *Kushthā*), as its material was used for ingredients of perfumery and medicinal substances⁶¹.

Till the advent of Hunas in the valley, there was peace throughout the vast empire of Kushanas as a result of which trade and commerce flourished in the valley also. The wide currency of gold, a large number of copper and a little silver coins establish the historical fact that the people in general under Kushanas were prosperous and

happy. The brisk trade carried out in the valley was mainly possible because of sufficient internal resources and productivity. The powerful kingdom of Great Kushanas which lay between the Chinese and the Persian states had a consistent policy towards trade. It was because of this exceptional state of affairs marked by stability and confidence, that the land silk-route came into being. This was the time when Rome's consumption of silk was increasing year by year and the Romans were eager to reach the east and west coasts of the Indian sub-continent. In order to meet their growing demand of silk, the Messenian merchants living in lower Babylonia used to receive silk from China through the people of Kashmir, Kabul and Archosia⁶². The people of Kashmir and north-west India established colonies in Khotan and Kashgar for safe travel of traders over the main land trade route passing through the various regions of Central Asia⁶³.

Religion, Language and Literary Contribution

Kushanas on the whole followed a policy of religious toleration. The deities on the coins of the rulers were not only Buddhist or Brahmanical but also Greek, Sumerian, Zoroastrian, Elamite and Mithraic deities. However, during this period, Buddhism received a great fillip and patronage at the hands of the rulers especially Kanishka and his successors.

The valley of Kashmir was, even prior to the advent of Kushanas, a great and an important centre of a Hinayana school called *Sarvastivada* (a school of realist philosophy holding the doctrine that all exists). During the Kushana period, Mahayana Buddhism appeared. Kanishka's Buddhist council held in the valley gave a fresh impetus as a result of which Buddhism became a dynamic world religion. Kashmir became a focus point for the spread of Buddhism in its new form, a development of

Mahayanism with its forms of worship coming increasingly into the pattern of Brahmanical worship.

The main popular language of Kushanas was Prakrit⁶⁴. This is a mixed dialect consisting partly of Prakrit and partly of Sanskrit words⁶⁵. The propagators of this mixed language were particularly monks and their pupils who travelled far and wide which resulted in an intensive international contacts of the broadest syncretism of various cultural traditions. Monasteries, supported by kings and laity, became famous as the residences of the scholars and thus, were the known seats of learning⁶⁶. Versatile scholars of great repute like Asvaghosha, Charakha, Nagarjuna, Parsva, Vasumitra, Sangharasha, Kumaralata, Aryasura, Dharmamitra Mathara and others resided in various settlements and monasteries in the valley. Most of them lived at *Shadarhadvana* (present day Harwan). Many scholars from the neighbouring regions came over here to learn different aspects of the Buddhist faith. The instructions were mainly imparted by oral traditions. However, the sermons and other details were recorded on palm-leaves, birch bark, piece of wood and sometimes on stone or earthen wares. An inscription in Brahmi characters is engraved on a large block of rock located on the bank of Chandradhara stream near the Buddhist site of Takiya Bala, district Pulwama of 4th century A.D.⁶⁷. The terracotta plaques at Harwan invariably also carry Buddhist creed in Brahmi script *Ye dharma heruprabhaya* etc. recognized of the same data⁶⁸.

Kanishka's council impelled monks and scholars to wander far and wide regardless of hardships and privations and in this way Kashmir took a leading role in the transmission of Buddhist traditions beyond its borders. This induced many aspiring scholars from outside to come over here for enlightenment and return, back to

their native places. There was brisk movement of bands of missionaries which gave a great fillip in the promotion of Buddhism not in India only but to the regions and Kingdoms outside the sub-continent. The interchange of scholars, in which Kashmir no doubt excelled, the settlements and the Buddhist religion achieved respectability and enjoyed the protection of the rulers of the other regions. This holy missionary work based on love, scholarly arguments, simplicity and non-violence hastened the rate of conversion to the new faith. In this way the history, coupled with archaeological finds, records that Kashmir made a significant contribution towards the promotion of Buddhism in China, Tibet, regions of Central Asia and other countries. It is under such diverse races, people and faiths that Buddhism evolved into a world faith. The Kushana settlements in the valley as a result of this literary drive witnessed the first age of Asian unity⁶⁹.

A sustained cultural intercourse took place between Kashmir and China for having a common ground of intellectual and spiritual interest for both. It drew a number of scholarly monks from Kashmir and China and vice versa. They translated their Sanskrit texts into well known Indian scripts viz., Brahmi, Kharoshti or the 'slanting' Gupta script. In between the valley of Kashmir or Gandhara and China, there were many oasis-states throughout the entire regions of Mid-Asia where archaeological remains were found in the form of temples, monasteries, artifacts, manuscripts and material traces of Buddhist rites and ceremonies besides Buddhist sculptures and paintings that had developed on the style of Graeco-Buddhist pattern of school in Gandhara and Kashmir. Some of the notable Kashmiri monk-scholars and learned men who carried on this missionary activity

in the oasis-states of Central Asia and China were highly honoured and striking personalities of the times.

A Kashmiri monk-scholar Dharmatrata made first Chinese translation of a collection of *G-athas* between 221-223 A.D. This makes it out that he must have lived before that date. He also composed an *Abhidharma* treatise in a monastery near Pushkaravati (modern Peshawar), the ancient capital of Gandhara. Harivarman, a famous *Sarvastivadi* teacher of Kashmir composed a valuable work *Satyasiddhi Shastra* in 253 A.D. Sanghabhuti, a distinguished Kashmiri scholar and translator reached the northern capital of China in 381 A.D. and translated *Vinaya Pitaka* from Sanskrit into Chinese. Gautama Sanghdeva, a Buddhist scholar of Kashmir, went to China in 383 A.D. Having specialised in *Abhidharma* branch of Buddhist studies, he wrote several books on it. Punvatrata and his pupil Dharmayasa went to China at the behest of Kumarajiva, a great translator and teacher of Buddhism towards the end of 4th Century A.D. In collaboration with Kumarajiva, he translated many Buddhist scriptures. His pupil Dharmayasa from Kashmir studied sacred texts under the guidance of his teacher Punyatrata and then travelled through various countries of Central Asia. He then reached China in about 397-401 A.D. and translated some works into Chinese. Other scholars of repute and who made notable literary contribution were Buddhajiva (423 A.D.), Buddhavarman (433-439), Gunavarman-born in 300 A.D. in a royal family of Kashmir, retired from the world at the age of twenty, and mastered almost all the Buddhist scriptures. After converting Ceylon and a flourishing Hindu state of Java to Buddhism, he was invited by the Chinese emperor Wen to visit his country. He reached China in 431 A.D. and remained there as an honoured guest of the Government till his death. He organised *Sangha* (monk organisation) for the first time in China. He translated about

ten Buddhist works into Chinese. Vimalaksa was an another celebrated monk of Kashmir. He studied in a monastery at Kucha where Kumarajiva, a great Buddhist teacher, also studied with him. Vimalaksa stayed in China from 406-413 A.D. and translated a number of works. He continued his mission of preaching 'Buddhism in south China after the death of Kumarajiva and explained the translations made by Kumarajiva to Chinese scholars'⁷⁰.

Kumarajiva was the son of a Kashmiri scholar, Kumarayana who had come from Kashmir to settle at a township in the Kucha state. Here he continued the style of living like that of his native place in preference to current Iranian style. Kucha from the literary and religious point of view formed an integral part of outer India and from the point of view of material civilization it was at the same time a province of Outer Iran⁷¹.

Kumarajiva, a highly accomplished scholar and exegetist, was born in Kucha and the name given to him was a combination of the names of his Kashmiri father Kumarayana and Kuchan mother Jiva. After completing his studies, he worked in Kucha, Kashghar and other places. By dint of his talent and scholarship, he was appointed as the Director of the translation bureau in Changan, North China. He continued the work till his dying day in about 412 A.D. As a result of his continued devotion and zest for work, many of the old Chinese translations which were archaic in language were retranslated. In all, the outturn is put at 300 translated books among which a large number of them is recorded in Chinese *Tripitaka*. His explanation on Mahayanist philosophic concept was taken as an authoritative version by Chinese Buddhist teachers of his time. He expounded Nagarjuna's doctrine of *Sunyat* (Emptiness) in a more brilliant manner and his version was accepted by the scholars and other intellectuals in China and elsewhere.

He left a host of disciples and pupils who carried on his literary work after him.

Due to Kumarajiva's ceaseless work and by other monk-scholars and Buddhist teachers from Kashmir who preceded or succeeded him, the Buddhism took deep roots in the soil of China and in other regions. The scholar-gentry of China who wanted to do away with rigid view of Confucianism, of Taoism or such other barbarian religion readily accepted the Buddhist ideas and doctrines as presented by the Buddhist teachers from the valley. In course of time, Buddhism was woven into the very texture of Chinese life. A number of Buddhist teachers, scholars and translators of diverse nationalities came to the forefront and became active in rendering Buddhist texts into Chinese or other regional languages acceptable to lay-men. Some pioneer scholars among them also visited the valley but their number was small in comparison to the vast number that existed here.

A Chinese traveller-cum-monk-scholar came to Kashmir in 404 A.D. He was followed by Fa-Yong with a host of 25 monks in 420 A.D. Systematic and frequent visits of such scholars and pilgrims continued thereafter also.

Buddhism in Kushana period was, therefore, a glorious and a splendid era which united most of the areas of Central Asia, Afghanistan, China, northern India and the countries in the west and east of India. Wherever it penetrated, it received due patronage from the people and the rulers. This all was due to the climate of tolerance and religious curiosity which characterised the doctrines of Buddhism. It is evident that the Kushana rulers who patronized Buddhism did not oppose Brahmanism which still remained a dominant and a formative force. On their coins Shiva was depicted in many poses, at times three faced and four armed wearing a necklace, waist cloth, tiger's skin on his left arm and his hairs arranged in a

spiral form. Standing by the side of his favourite bull, he is portrayed with various attributes which include a trident, a vase, a thunderbolt, a noose as a wreath, an elephant, a goad, a deer, a spear, a club and a battle axe⁷². The Kushanas were as such believers in the unity of all religions. Their understanding, broadmindedness and spirit of toleration resulted in the final assimilation of Buddhism into Hinduism. Kashmir took a lead which was possible only because the settlements here were experiencing a flourishing era.

Archaeological Advances, Art and Architecture

Inspired by the singularly rich and lovely natural surroundings, the Kushana settlements represent the origin of building art in the valley. It is the cross-fertilisation of ancient Brahmanical, Iranian and Greek cultures aided by the local artistic expressions. Kushanas greatly revitalized the knowledge and technical skill already acquired by Indo-Greeks. The valley of Kashmir especially under the begin rule of Kanishka became the celebrated centre of a tolerant and luxuriant style of art and architecture. In his period the Buddhist art turned to be the focus of Indo-Hellenistic and Gandhara cultures. Gandhara school of art flourished and reached new heights of glory and development. It was, however, cosmopolitan in character.

Ancient Gandhara assumed a phenomenal significance because of its geographical situation. It stretched south of Hindukush, along the Kabul river till its junction with the river Jhelum (the main source of transport in ancient Kashmir) and extended northwards into the hilly tracts of Swat, Buner and Bajur (ancient Udyana).

The archaeological research in recent years at some of the ancient sites of western Iran (ancient Parthia), and Hyrcania (north-eastern Iran) and Gandhara have confirmed the Hellenistic penetration during the Greek rule but its

continuity in a dignified style achieved a great significance during the Kushana period⁷³. Gandhara in the Peshawar valley of Pakistan was the meeting ground of Indian, Persian, Greek, Central Asian, Chinese and Roman cultures⁷⁴. Under Kanishka and his successors, Huvishka and Vasudeva, Gandhara region enjoyed peace and prosperity and was not considered to be the only frontier part of the Northern India. Both Gandhara and Kashmir were considered as one geographical unit.

Influenced by the contemporary Gandhara school, its artistic traditions in the valley received a direct inspiration for its development. The motivation for the production of the art may have been religious but there was a creative urge for projection of terracotta art which reflects striking manifestations of life scenes amongst the society and environment surrounding the Kushana settlements.

In Kashmir, terracotta art represents a religious as well as secular affiliations of a very high order. Instead of stone masonry, large sized terracotta plaques were utilised freely. These were moulded and modelled and are unique of their kind so far as the development of architecture in Kashmir is concerned. They betray decorative motifs and scenes of life and are of a legendary character⁷⁵.

The most valuable and striking finds are the terracotta tiles from the Buddhist sites especially from a Kushana settlement of Harwan, district Srinagar. These present an effective and a colourful picture of human beings, mythical and real representation of animals, floral and other abstract motifs or figures of diverse nationalities.

The human figures shown on the tiles are men and women in pairs or more on the balcony, water carriers, horse riders, dancing women, musicians with instruments like flute, cymbal, pairs of drums etc., men fighting with the dragon for the wheel of law, archer wearing a conical

cap, female figures attired in close-fitting garments holding their skirt with the left hand and a vase of flower in upraised right hand, emaciated monks etc. The rich attire of men and women, their exquisitely carved ornaments of ear-rings and beaded necklaces, pointed Turkman caps, style of combing the hairs, sunken eyes, low receding foreheads, heavy jaws, dresses, weapons or arms show resemblance with the ethnic features of the people residing in various countries of Central Asia. The couple on the balcony are generally wife or husband or lovers. Both are seated facing each other. They have their own individual personality. The woman has a distinct style of hair dress and wears a beaded necklace while the man is having a well-built body and carries bonded strands of hairs at the back of his head. The man holds in the left hand a lotus bud and some times he holds a cup of wine and thus enjoys while conversing with his counterpart. Even the lotuses were also substituted for cups in the hands of figures of bacchanalian scenes.

The occupation of the society in Kushana settlements varied from person to person. In order to maintain the high standard and comforts by the well-to-do people manual labour was employed. Some of the labour class had to work more as compared to professional actors like dancers, musicians or women attendants directly attached to the masters. For instance, the water carriers shown in the process of bringing water in pitchers had to undergo much physical hardships. The water had to be fetched from the running streams down below and he had to carry it in pitchers after walking the breath-taking slope of the settlement at Harwan. His physical posture and the facial expression is a proof of the magnitude of manual labour he had to undergo. He holds one pitcher by his right hand stretched downwards and the other is held by his left hand stretched over his head while the

pitcher rests on his right shoulder. Against this, the women in a relaxed mood, wearing a thin robe and a stole is shown holding only one vase on her upraised left hand while with the right hand she supports her skirt. The vase most probably is the incense burner. A similar fascinating and impressive example is characterised by the professional dancer who wears long ear-rings, loose robes, trousers of full length but tight near the anklets. The long scarf hanging from her head on either sides is held by her two hands presenting an emotional gesture of her performance. In due recognition of skill, the figure is portrayed within an ornamental panel. On the whole it signifies the higher status for a woman in general. The musicians are also shown full of vigour and movement while playing on their instruments like flute, cymbals, drums etc. Flanked by floral motifs in another panel is shown a well dressed female musician playing on a drum slinging from her left side of the shoulder by means of a strap. Martial spirit is depicted by a scene of combat between the man and a fabulous monster. The man holds a heavy headed mace in his right hand. The creature is standing on its hind legs. In between the two is shown the wheel over which both appear to be fighting. The offensive arms were bow and arrow. A soldier in armour is seen in a panel riding on a galloping horse holding the curved bow with his left hand and with his drawn-out right hand he is shown in the act of sending an arrow. In another panel an archer is shown riding on a horseback chasing the deer and shooting arrow at it. In this way, these terracotta tiles provide information on the nature of the social life and the range of activities practised by different sections of the people. There was a planned system of division of labour ensuring the safety and security of the settlements. This reflects a sound administrative capability and economic stability. Still

fundamental differences remained between rich and poor or between feudal nobility and priestly class. Evidences of suffering spells are illustrated through repeated motifs of self-tortured scenes of emaciated monks who are lean, nude, reduced to skeleton and are seated in a crouched position with their bent-backs and legs tucked up. Their chins are placed on the hands which in turn are resting on their knees. This is a realistic picture of starvation or the agitational path resorted to by these monks to give vent to their feelings against the luxurious way of living of the upper class of the society and the non-Buddhist practices like the lavish life style of amorous couples, wine-drinking, dancing, wrestling, acrobatic etc. Such scenes of pleasurable life of amorous couples are distinct in Gandhara reliefs and popular themes in Mathura school of art⁷⁶. Similarly exposures like old and sick women and people with tortured bodies, anguished expressions, protruding ears and warty skins have occurred at the beginning in the Hellenistic art⁷⁷.

The production of countless terracotta motifs at Harwan are both mythical and real⁷⁸. Among these are the scenes representing man and a griffin fighting with each other, galloping horse, long horned deer sometimes shown with its head turned backwards at the moon or the archer on horseback chasing it and even shooting arrows at them, domestic cocks with foilated tails in roundrels or in the centre of floral patterns, running or flying geese holding lotus stalks in their beaks, cocks and rams fighting, *makra* type of animals, lions, fish, elephants, cows suckling their young etc. The decorative elements consist of frets, wavy lines, fish borne patterns, conventional flowers, flower or lotus petals, aquatic plants and full blown lotuses shown both in separate panels and in vases. The tiles were invariably stamped with Kharoshti numerals to avoid confusion in their setting.

The meticulous display of highly ornate human figures and their movements, griffin like fantastic creatures, Kashmiri *barasingha*, indigenous flora and fauna with the natural environmental set-up betray excellent artistic skill of which Kashmir can justly be proud of. The Harwan tiles show comparatively evolved technique reflecting the socio-religious and opulent life of the inhabitants. These characterise the syncretism of cultural traits of many diverse nationalities and civilization besides the indigenous creations.

The grand achievement of architectural style of settlement patterns and the exuberant artistic productions at Harwan under the supremacy of Kushanas were widely distributed and illustrate various phases of evolution. This indicates that the spirit of progressiveness was a living force. Despite regional or local manifestations, the standardization of forms, principles and procedure has been maintained which indicate that all these examples from various sites in the valley fundamentally belong to same wide-spread movement.

The ancient capital of Huvishkapura named after Kushana king Huvishka (modern Uskhur) in Baramulla district has yielded terracotta tiles but lacks artistic magnificence of Harwan. These depict widely carved petal motifs without any decorative element and as such show the process of evolution of the monastic art in the early centuries of the first millennium.

Representing the style at the next stage are the group of settlements in the Liddar valley in and around the famous health resort of Pahalgam, district Anantnag. The first in the sequence and partially excavated in recent years is the site Huthmura (ancient *Shaktha Matha*). The site proper is locally known as 'Darad Kot' and is at a distance of about 3 kms from the present village of

Huthmura on Srinagar-Pahalgam link road. The village is large enough and the place of Darad Kot formed part and parcel of this very village which itself is an ancient site.

The excavated site of Darad Kot is above the inhabited village of Huthmura and is approached through a fair weather road laid over series of plateaus. Its area to its extreme and stands disturbed by digging of the canal called 'Shah Kul'. The entire site is spread over terraces with a deep gorge in the centre due to emergence of a stream from the mountains. Darads have a long history and are an Aryan race⁷⁹. They dwelt to the north of Kashmir across the Indus region of Gilgit, Cilas and Bunji to the Kishanganga valley. Some men of this race lived in the village of Drass, an open valley below the highest point of rocky precipice, the famous Zojila pass connected in the west with the Kishanganga valley through passable mountain ridges. Drass is an important centre place for onward journey to Leh, Tibet and Central Asia. From Darad Kot and Pahalgam, it could be approached through Baltal via Pahalgam itself.

Baltal is the last halting place before going up to Zojila pass. It is plain place surrounded by lower hill slopes. Apart from Pahalgam, it is accessible from Sonamarg also but the journey from here to the famous pilgrimage of Amarnath cave is more convenient and shorter as compared to via Pahalgam. However, both the routes to the valley were used for entry into the valley right from the pre-historic times. Like Drass some hordes of Darads might have camped on the upper ridge of Huthmura and it was named after them as 'Darad Kot'.

In a hasty schedule, a portion of one of the terraces was excavated and a tile pavement exposed. It was laid in concentric circles with a full-blown lotus in the centre. The get-up had stylistic similarity with the tile pavement

at Harwan. The tiles are of various shapes and patterns. The motifs on some of the exposed tiles represent human beings with normal facial appearances, human beings with animal heads or with tails. Such figurative decorations are very interesting and fascinating and appear new in the art of Kashmir. The animal and birds are represented by lions, deer, swans, cocks and motifs of flora and fauna which must have been present when the entire environment was heavily wooded and watered. Among the fruits, grapes seems to have been particularly grown in abundance. On one of the tiles, a bird is shown cherishing the grapes which confirms its surplus growth and sweet substance. The extensive cultivation of grapes has been mentioned by Bilhana⁸⁰ and Kalhana⁸¹ in their works. The most striking feature is shown on a trapezium shaped tile, the longest side of which measures 42 cm. On it, three human beings are depicted standing in different postures. In the extreme left panel, a man is shown in a smiling pose with hairs twisted in a projected knot at the back and wears a typical Kushana dress. His right hand rests on the right hip and with his left hand he holds a club or a incense burner or some object of a curious nature as his eyes are fixed on it. The other figure to its left panel is shown in a dancing pose with both the arms and hands held high over the head. Strangely enough, it is shown with a pointed tail raised up in tune with the dancing pose. In the third panel on the extreme right is an animal headed-human being. The head is that of a boar (Varah) with its right hand resting on his right knee which is raised up. The left hand is behind its body. The legs and feet are wide open and are shown in the opposite directions as if in a wrestling posture. A ring is shown on his nose and the two pointed plaques of girdle cloth are visible in the front. The neck is decorated with plain band. Almost all the tiles are numbered in Kharoshti numerals.

The entire complex of these tiles which stood exposed was demarcated by the pebble style of construction duly enclosed by a rubble wall. The pebble walls were laid bare in other pockets due to natural catastrophe. However, the pure pebble sequence observed here with small rubble stones is a unique phenomenon since both these constructions are shown in different sequential situations at Harwan. Further, the notable discovery was the presence of plain grey ware under the rubble structure which could obviously take the date of the site here earlier than the date assigned to the pebble structure at Harwan. The exciting find of this ceramic industry coincides then with the visit of Darads after which the site is so named. The Kushana settlement is, therefore, posterior to them.

Some distance from the foregoing, on another spur and nearer the town of Pahalgam, Kushana settlement of the same kind had been spotted at Hoi-Nar. The site is surrounded by snowy peaks and overlooks the roaring Liddar river below. Three dome-shaped structures in baked bricks exist which could be the remains of stupas. Such a starkly evidence suggest that these formed the part of the structural complex of a comprehensive Buddhist settlement. The upper portion of one of the stupas is overlaid with burnt stuff which points to the devastation of the site and the associated standing structures of the times. None of the remains were excavated but probably from the surface or from the exposure of the pavement surrounding these stupas, some moulded terracotta tiles were recovered. They are of crude construction and the motifs on these marked by human figures, dress, weapons or animals are devoid of lustre and skill and as such may again be of an earlier date. Besides, the symbolic representation of Buddhist religion in the form of spoked wheel of Law or the

'Chakra', there are other motifs, unique of their kind, distinguished by human beings and animals. On one of the tile recovered from the site is a hunting scene which recalls a much earlier phase of hunting scene of the Neolithic period at Burzahom. Here also a running deer is struck by a long spear thrown at it. The deer or the stag (Kashmiri Barasingha) out of the fear and surprise had turned its head towards the hunter dressed in a nomadic dress of Kushana style. He is shown with his both hands raised as if to express his happiness over his successful and accurate aim at the prey. Among other floral motifs, the most impressive and notable feature is of two winged lions with their intertwined necks as if in a combat. Its inspiration has been assigned to western and Central Asian artistic conceptions⁸².

Further, in a similar natural position on the other side of the river in Pahalgam and in a more thickly wooded compartment of village Mamal (ancient Mameleshvara) Buddhist settlements have been discovered at Doni-Pathar, Yaren Yender, and Guder Nakh. A number of moulded terracotta tiles have been encountered. The animal motifs and other geometrical designs on the tiles are stylistically akin to Hoi-Nar collection⁸³. The entire zone has been a centre of stoneware (Grey coloured) industry. Numerous chips of dishes and bowls were found here⁸⁴.

Again in the district of Pulwama on a low level than the preceding one, ancient Kushana settlement was discovered at Kralchak. Here also terracotta tiles portray a vine plant with bunches of grapes and flying birds below. Other tiles are shown with a flower plant rising from a globular vase and a full blossomed flower flanked by petal motifs. The tiles are numbered with Kharoshti numerals. Besides on another tile there is a non-descript motif of flower and leaves with few lines radiating from a central object⁸⁵.

In district Baramulla, terracotta tiles have come from the village Ahan, near Sumbal on the left bank of river Jhelum. These illustrate a stage of development and could be transitional style between the tile productions of Pahalgam and Harwan. In one of the tile a human figure with a spear is depicted in a slightly dignified manner. Kharoshti numerals are recorded on it⁸⁶.

In much the same style as at Harwan, both structural and decorative evidences have come from village Takiya Balla 33 kms from Srinagar in tehsil Tral, district Pulwama. The place falls on the southern side of the hilly region of Harwan and, in view of the similar cultural material found here, it is worthwhile to believe that the ruins of Takiya Balla are but the extension of the Kushana settlement of Harwan. Locally the place is traditionally associated with 'Hari Chandra Raja' named after king Harishchandra with which the ruins of Harwan on its north are also known. The lucidity of the fresh structural exposures at Harwan will undoubtedly reveal new phases of settlements and associated material on either sides of the hillock.

Probing a section of the lowest terrace at Takiya Balla in close proximity to Chandrahara stream, pure pebble wall of a structure came to view which goes in line with the earliest phase of building activity at Harwan. The pottery is distinguished by red ware, thin to medium fabric represented by bowls, dishes, basins, small but wide-mouthed cups and knobbed lids. Stray sherds in black slipped ware and grey ware were found. A couple of terracotta tiles, recovered here carried only broad sized petal motifs. The most striking discovery was that of an inscription in Brahmi letters on a huge rock lying on the right bank of Chandrahara stream. Only a letter or two are discernible which do not make any reading. However, an attempt to record in Brahmi script adds to the importance of the site being of an antique value.

The Kushanas were great patrons of art, and other than terracotta tiles, many wonderful products of terracotta objects were created which became popular with the common man. Terracotta was used for manufacturing of favourite images which have also occupied a distinct position in the art history of the valley and were in fact a source of inspiration for the stone cutters to produce sculptures in stone during the succeeding periods. These consisted of human figures and figurines, Buddhas, Bodhisattvas, Stupas, clay objects etc. These served as the most convenient and less expensive medium of artistic expression among the rich and the poor. The source of expression for development of terracotta figures of other associated cultural material had come with the Indo-Greeks and it were the Kushanas who gave it a practical shape.

In the excavated site of Semthan from the Kushana levels, important antiquities were obtained which included terracotta figures, terracotta balls, clay sealings with Brahmi and Kharoshti scripts, semi-precious stone, bone and shell objects, copper coins of Kushana rulers. Some of the terracotta figures were prepared out of the single mould.

A number of terracotta figurines and animals besides copper coins and pottery of different periods and styles are coming forth in groups from the Semthan mound particularly after the rainfall. These include monks, Buddha, Bodhisattvas, female and male figures with distinctive draperies, poses and facial expressions. Among the animal figurines various types of rams, monkeys, cows, elephants etc. with beautiful mouldings are found. Coins of Indo-Greeks, Kushanas and of Hindu and Muslim periods are found in large numbers from the slopes of the mound or in the rain gullies. All such superb collection of antiquarian value from Semthan

distinguishes it now as a site of rich cultural material bearing a stamp of rational chronology.

A collection of terracotta figurines from the Semthan site was obtained in excavations from the Kushana layers. A noteworthy standing figure was of a Bodhisattva wearing a sleeved tunic reaching to the knees and having intermittent delineated folds usually running parallel to one another. Being headless, facial expression is missing. The right hand of the figure is raised as a gesture of *abhayamudra* (protection from fear) and the left hand probably is straight. Another male head has typical moustaches. Some figures are shown with necklets around their necks and necklaces of ovoidal beads or pearls of uniform sizes. In early Indian art, depiction of necklets, necklaces or *Channavira* (meaning protect-warrior) type of ornament and wristlets are very common⁸⁷. A headless standing figure of a female deity, probably of Hariti, was found. She wears necklets, *Channavira*, wristlets, three strands of beaded *Mekhala* (belt) and her left hand is placed over the head of a child. The right hand is placed by the side of the thigh. Again from the Kushana level is a seated Buddha figure in a separated panel wearing *uttariva* (attire) covering both the shoulders. He is seated in the *padmasana* (lotus seat) posture with legs crossed and soles turned upwards. This again shows the striking resemblance with the Buddhist art of Gandhara. At the bottom are two animals in a combat. These are frequently represented on terracotta tiles from the Kushana settlements of Harwan.

The pattern of drapery, ornaments and symbolic gestures and get-up of the figures indicate close similarity with Gandhara prototypes. In the later levels of this period at Semthan terracotta finds included both human and animal figures. The earlier treatment of drapery, ornamentation and tangibility is missing.

However, such finds recovered from the stratified dig and large number of these from the surface portray a systematic flow of cultural cross-currents into the valley during Kushana and late Kushana periods.

At Harwan itself, a number of terracotta finds were also found. These included bodily limbs of Buddha or Bodhisattvas, their snail-shell hair curls and plaques bearing replicas of miniature stupas. A terracotta coin more or less a prototype of the coinage (in metal) in vogue reported from Buddhist settlement of Harwan appears to be of a later period. There was no need for going in for such a cheap method of coinage when the Kushanas had their set standard of minting gold, copper and to some extent silver coins to meet the needs of their subjects and to facilitate international trade. The large sized terracotta pendant and now reported gold flower petal⁸⁸ could be the ornamental objects of the Bodhisattva. The Gandhara sculptures are invariably adorned with necklaces which consisted of spacers of different shapes suspended from the plaited gold⁸⁹. However, the use of jewellery or gold indicate the flourishing period of social life under the Kushanas.

At the ancient city of Huvishkapura, modern Ushkur in Baramulla town, built by Kushana king Huvishka, an earlier architectural evidence of a stupa plinth was exposed in recent years as a result of scientific clearance⁹⁰. This was afterwards superimposed by another one built by Karkota king, Lalitaditya in 8th Century A.D. The earlier one is built of slate stones which is quite distinct from the heavy stone blocks used at a later stage. However, both the patterns are similar to the corresponding structure of Gandhara School of architecture. Outside the surrounding wall of the stupa in the north-eastern corner and also outside the complex, a considerable number of terracotta heads and

fragmentary limbs of the images were found. These again display influence of Gandhara school of art (3rd-4th century A.D.) and betray typical smooth conventional forms with appropriate gestures. In a plaque with beaded border, Buddha is shown seated cross-legged in the gesture of meditation (*dhyanamudra*) with hands placed on the lap and turned upwards. The figure is dressed in three garments (*trichivara*) worn one over the other. Another figure is shown with head covered by a beautiful net of curls, elongated eye-brows and protruded eye-balls and a smiling, calm, charming and attractive face. The figure illustrates the exemplary precision on the part of the artist. Again in a more set-form is a head of a Shakyamuni Buddha, still a Bodhisattva. The head is decorated in a stylistic fashion by bands of curls or pearls. It has half-closed eyes more beautified by the arched eye brows and, above all, reveals a more spiritualised expression. In a characteristic Gandhara style is another terracotta head of a Bodhisattva with its hair combed in twisted locks at the forehead and parts hanging on either sides with the top highly ornated strings of pearls. With a smiling face and staring eyes, the figure presents a highly dignified religious atmosphere.

The Ushkur art embraces almost all the aspects of human life in different styles and expressions. There are also heads of emaciated ascetics with a beard and moustaches portraying expression of thoughtfulness and detachment, youthful monks in meditation, attendants and female lay-devotees. The fragmentary pieces of hands, arms, feet, shoulders etc. are decorated with corresponding ornaments of rings, wristlets, beaded armlets, bangles and so on. The human figure heads which form the main group are the excellent specimens of the artistic skill and audacity of Kashmiris with deep-rooted influence from Graeco-Roman, Hellenistic, Indian

and Central Asian regions. They are fashioned by modelling and are of great antiquarian value⁹¹. As such these have been recognized as earliest examples of sculptural art in Kashmir⁹².

Near Srinagar at Soura such terracotta images of Buddha and Bodhisattvas were found. One Buddha head wearing usual type of head-dress (*Ushnisha*) with a halo behind the head had also been reported⁹³.

The latest important discoveries in Central Asian Republics and in Afghanistan have brought to light many sites where terracotta figures have been located which are inseparably linked with Hellenistic and Indian traditions⁹⁴. In fact, these very small but artistic Indo-Hellenistic Buddha images or Buddhist symbols wrought in Gandhara or Kashmir were taken by traders and merchants to Mid-Asia⁹⁵. These aroused the curiosity of the people there. Such regular contacts led to exchanges in all fields of life. Buddhism thus made the most marked advance during early years of Christian era.

The art of Gandhara is that of the period of Kanishka. The style developed because of the peace and prosperity of the Kushana empire⁹⁶.

The wide-spread settlements of Kushanas, therefore, gave a rich and brilliant exposure of architectural and artistic expressions in the valley. The Kushana era was an important landmark in the development of historical and cultural contacts among the nations and Kashmir was a promising meeting place for promotion of such ties. This left a rich legacy for the people who followed next.

Notes and References

1. S. Rau, *Studies in Indian History*, I.A.S Study Circle, New Delhi, 1968, p. 72.
2. E.J. Rapson, *Cambridge History of India*, Vol. 1(ed.), Cambridge, 1992, p. 700.
3. Bhaskar Chattopadhyay, *Kushan State and Indian History*, Calcutta, 1975, p. 3.
4. *Journal Asiatique* 1883, p. 32.
5. B.N. Puri, *India under the Kushana*, Bombay, 1965, p. 35.
6. Baldev Kumar, *The Early Kushanas*, New Delhi, 1973, p. 2.
7. H.G. Rawlinson, *Indian Historical Studies*, New Delhi, 1957, pp. 52-53.
8. P. Gardener, *Coins of the Greek and Scythian Kings of Bactria and India in the Britain Museum*, London, 1906, p. 120.
9. *JASB*, Vol. III, p. 152 and Vol. V, pp. 537 and 548.
10. *Ibid.*, p. 1881, p. 184.
11. *JRAS*, 1915, pp. 195-6.
12. A. Cunningham, *ASI Reports*, Vol. XX, p. 37.
13. *PASB*, 1896, p. 184.
14. A Cunningham, *op. cit.*, 11, p. 185.
15. *Ibid*, Vol. XIII, p. 43.
16. V.A. Smith, *Early History of India*, Oxford, 1924, p. 252.
17. *Ibid*.
18. *ASI—A Review*, 1984-85, p. 144.
19. P.C. Bagchi, *India and China*, Calcutta, 1994, pp. 68-74.
20. *IA*, 1929, p. 110.
21. V.A. Smith, *Catalogue of the Coins in the Indian Museum*, Calcutta, Oxford, 1906, No. 4, p. XXV-8.
22. *Ibid*, pp. 66-70.
23. M.A. Stein, *RT (Tr. & Ed.)*, Vol. I, p. 168.
24. B.N. Mukerjee, *The Kushana Genealogy*. Vol. I, Sc. Calcutta, 1967, pp. 55 & 90.

25. R.C. Majumdar & A.D. Fusalker, *Age of Imperial Unity, the History and Culture of People*, Vol. II, Bombay, 1953 (2nd ed./p. 305 (note).
26. B.N. Puri, *op. cit.*, p. 44.
27. *ASI—A Review*, 1984-85, p. 144.
28. Baldev Kumar, *op. cit.*, p. 84.
29. Satish Grover, *The Architecture of India*, New Delhi, 1980, p. 62.

This was the fourth council convoked by Kasishka. The first council was held at Rajagriha immediately after *Parinirvana* (departure of Buddha) in about 487 B.C. The teachings of Buddha were classified in two parts known as *Dharma* (order) and *Vinaya* (discipline). The second council took place after a century of Buddha's death. In this, a new edition of *Dharma* and *Vinaya* was compiled. The third council was held in the reign of Ashoka at Patliputra when *Tripitaka* was compiled and the deputation of missionaries to foreign countries for propagation of Buddhism was approved.

30. *Tripitaka* represents the teaching of Buddha called *Pitikas* (baskets). These are three in numbers:—

(i) The *Vinaya Pitika* given the rules of monastic way of life.

(ii) The *Abhidharma* refers to meta physics and religious treatise.

(iii) The *Sutra Pitika* contains Buddha's religious discourses.

31. Five sciences are: Grammar, mechanical arts, medicine, logic and religious philosophy.
32. V.A. Smith, *Early History of India*, Oxford, 1924, p. 269. (t. note). and T. Watters, *On Yuan Chawano's Travels in India*, London, 1905, p. 296.

Out of the three places, Gandhara, Rajagriha and Kashmir selected for the meeting place of the Buddhist council by Kanishka, Kashmir was finally approved in view of its natural scenery, good climate and ample food production. Gandhara was rejected because of its heat and dampness, Rajagriha (modern Rajgir of Bihar) because of the presence of too many adherents of other sects. Kanishka wanted to

avoid any such controversies in the meeting. Crowds came from his vast empire but after, entertaining them for seven days at Gandhara, only 499 learned saints were allowed to join in the conference besides his teacher and well wisher Parsava who was already in Kashmir at that time.

33. H. Oldenberg, 'On the dates of Ancient Indian Inscriptions and Coins' in *IA*, Vol. LX, 1881, pp. 213-16.
34. V.A. Smith, *Ancient and Hindu India*, Oxford 1934, p. 127, and R.B. Pandey, *Indian Palaeography*, Banaras, 1952, p. 195.
35. (Sir) John, Marshall, *Guide to Taxila*, Delhi, 1918, p. 22.
36. Sten Konow, *Corpus Inscriptionum Indicarum (Kharoashti Inscriptions)*, Vol. II, pt. I, XCIII, Calcutta 1929.
37. *Indian Historical Quarterly* Vol. II, 1926, p. 180.
38. R. Ghirshman, *Beram—Recherches archaologiques et Historique sur les Kouchans Memories de la delegation archaecologique Franchise en Afghanistan*, Tome, Vol. XII, Cao, 1946, p. 107.
39. D.A. Mankad, *Puranic Chronology*, Anand, 1951, p. 162.
40. (Sir) John Marshal, *ASI, Reports*, 1929-33, pp. 55-97.
41. R.C. Kak, *Handbook of the Archaeological and Numerismatic Sections of SPS Museum*, Srinagar, Calcutta, 1923, p. 131, and E.J. Rapson, *Cambridge History of India*, Cambridge, 1922, p. 36, Pt. IV, (5 & 6).
42. *Times of India*, Oct, 27, 1980.
43. *ASI—A Review*, 1967-68, p. 62.
44. A. Cunningham, *Ancient Geography of India*, London, 1877, p. 101.
45. B.N. Mukerjee, *op. cit.*, p. 19.
46. Satya Shrava, *The Kushana Numismatics*, New Delhi, 1983, pp. 12 & 236.
47. Percy Brown, *Indian Architecture, Buddhist and Hindu Period*, Bombay, 1959, p. 55. and (Sir) John Marshal, *Taxila*, Vol. II, Delhi, 1975, p. 137.
48. Debala Mitra, *Buddhist Monuments*, Calcutta, 1980, p. 111.

49. R.C. Kak, *Ancient Monuments of Kashmir*, New Delhi, 1971 (Reprint), p. 106.
50. ASI—A Review, 1973-74, p. 13.
51. B.N. Puri, *Buddhism in Central Asia*, New Delhi, 1987, p. 43.
52. ASI—A Review, 1977-78, pp. 23-24.
53. S.L. Shali 'Fascinating Archaeological Remains at Darad Kot' in *Kashmir Times*, Jammu, Nov. 27, 1988.
54. Benjman Rowland, *The Art and Architecture of India*, USA, 1953, p. 110.
55. G.S. Gaur, 'Semthan Excavations—A step towards bridging the gap between the Neolithic and Kushanas,' in *Essays in Archaeology and History, Ghosh Memorial*, (Eds.) B.M. Pande and B.D. Chattopadhyaya, Vol. I, New Delhi, 1987, pp. 327-337.
56. S.C. Ray, *Early History and Culture of Kashmir*, New Delhi, 1969, pp. 232-33.
57. F.M. Hasnain, Ancient Buddhist site discovered at Lidroo, Pahalgam, *Press Note*, Srinagar, July 25, 1978. And press note issued by Mr. Ghulam Mohi-ud-din, Director, Archaeology, Museum and Archives, J&K state regarding Nre archaeological site unearthed in Pahalgam *Daily Excelsior*, Jammu Nov. 17, 1995. p. 8.
58. IAS—A Review, 1981-82, pp. 16 & 17 and 1983-84, pp. 33-35.
59. *Ibid*, 1976-77, p. 75.
60. The finds were reported by the Director, State Department of Archaeology, Museums and Archives, Dr. Abdul Ahad.
61. Radha Rashmi Mani, *The Kushana Civilization*, Delhi, 1987, pp. 94 & 214-19.
62. B.N. Mukerjee, *The Kushana Genealogy*, Vol. I, Calcutta, 1967, p. 125.
63. Bhaskar Chattopadhyay, *Kushana State and Indian Society*, Calcutta, 1975, p. 44.
64. B.G. Gafurow, E.A. Gratonvsky and V.M. Masson, 'Kushana Studies in USSR' in *Soviet Indology Series*, Calcutta, 1970, p. 47.

65. R.C. Bhandarkar, *IA*, Vol. XII, p. 146.
66. T. Watters, *op. cit.*, Vol: I, London, 1905, p. 108.
67. *ASI—A Review*, 1977-78, pp. 23-24.
68. R.C. Kak, *op. cit.*, p. 108.
69. Radha Kamal Mukerjee, *The Culture and Art in India*, New Delhi, 1959, pp. 131 & 148.
70. Advaitavadin Kaul, *Buddhist Savants of Kashmir*, Srinagar, 1987. pp. 13-35.
71. Grouset Rene, *In the Foot Steps of the Buddha*, London, 1932, p. 57.
72. V.A. Smith, *Catalogue of the Coins in the Indian Museum, Calcutta*, Oxford, 1908, p. 68.
73. Lohita Nehru. *Origin of the Gandhara Style*, Bombay, 1989, pp. 1-7.
74. W.H. Schoff, *Periplus of the Erythraean Sea*, New York, 1912, p. 219.
75. P.L. Gupta, *Gangetic Valley Terracotta Art*, Varanasi, 1972, p. 64.
76. Devangana Desai, *Erotic Sculptures of India*, New Delhi, 1985, pp. 21-22 & 53.
77. Moses Hadas, *Hellenistic Culture*, New York, 1959, pp. 223-24.
78. Robert E. Fisher, *Harwan Art and Architecture of Ancient Kashmir in Marg*, Vol. XL, No. 2, Bombay, 1989, pp. 1-5.
79. Frederic Drew, *The Jammu and Kashmir Territory*, New Delhi, 1976, p. 423.
80. Vikramankadeva *Charita*, 1875, XVIII, 72.
81. *RT*, I, 42.
82. J.L. Bhan, 'Tile a Vital Link,' in *Central Asia and Western Himalayas, A Forgotten Link*, (ed.), G.M. Buth, (K. University), Jodhpur, 1986, pp. 44, Fig. 4.
83. F.M. Hassnain, *Departmental Press Note of Dec. 6*, 1978.
84. *IAS—A Review*, 1973-74, p. 13.

85. *Ibid.*
86. J.L. Bhan, *Ibid.*
87. K. Krishna Murthy, *The Gandhara Sculptures A—Cultural Survey*, Delhi, 1977, pp. 40-45.
88. Azaz A. Banday, 'Copper coins from Harwan' in *The Journal of Central Asian Studies*, Vol. III, Kashmir University, Srinagar, 1993, p. 88, (Foot note, 19).
89. K. Krishna Murthy, *op. cit*, pp. 38-39.
90. *ASI—A Review*, 1973-74, p. 13.
91. R.C. Kak, *Handbook of the Archaeological Numismatic Sections of the SPS Museum*, Srinagar, Calcutta, 1923, pp. 11-25.
92. H. Goetz, 'Medieval Sculptures of Kashmir,' in *Margs*, Vol. III, 1955, p. 65.
93. *ASI—A Review*, 1976-77, p. 75.
94. B.G. Gafurav, 'Kushana Civilization and World Culture,' *Central Asia, Proceedings of the International Conference on the History and Culture of Central Asia in Kushana Periods*, 27 Oct., 6, 1968, Sept. (2 Vols). Dushambe, Moscow, 1974, Vol. I, p. 79.
95. Sukumar Dutt, *Buddhism in East Asia*, ICCR, New Delhi, 1966, p. 125.
96. Ahmad Hasan Dani, *The Timargarh and Gandhara Grave Culture*, an introduction in *Ancient Pakistan*, Vol III, 1967 (Special Number).

Wide-Spread Organised Settlements

Emergence of a New Classical Order

The period between 1500-1000 B.P. saw a great deal of prosperity and expansion resulting in the increase of population and human settlements. The archaeological research has also revealed that the vegetation, climate and rainfall did not change to any appreciable extent since the advent of Neolithic culture in the valley¹. The pollen sequence at the Hokasar lake (about 12 kms north-west of Srinagar) indicates warm temperate and humid climatic conditions. Also at Anchar lake (15 kms north of Srinagar on Srinagar-Leh road) the detailed investigation of the pollen did not show any significant change in the climatic conditions of the valley. On the other hand, the high values of *cerealia* type pollen indicates agricultural activity during the period. The study of Manasbal lake (about 27 kms from Srinagar and near the famous Wular lake) sediments show a warmer and more humid climate, in tune with the global mediaeval warming². With favourable climatic trend during the period under review, there happened to be hectic human activity, closer contacts with the world outside, synchronization of new era of art, architecture, structural and sculptural attainments which all put together bear testimony to the expansion of large settlements. Apart from literary

records, these accomplishments stands confirmed from archaeological evidences as well.

The contacts of the Kashmiris with the Harappans during the pre-historic period had by now given a new conception of religious sentiments among the people. The reverence shown to standing Megaliths induced the people to worship such natural stones of peculiar and uncanny features which in course of time leaned their mind towards the worship of divinities and veneration to ritualistic and mystical utterances. Three tall snowy pyramidal summits to the west of Banihal are revered as the seats of trinity i.e. Brahma, Vishnu and Shiva. The highest peak of Haramukh (ancient Haramukhta or face or diadem of Shiva) in the Sindh valley is regarded as Shiva's favourite residence from ancient times, mountain Mahadeva on the extreme end of Dal lake in the Srinagar district is known to contain Shiva's rock (Shankar Pal) and from very olden times is a seat of pilgrimage. The worship of such self-born images gained momentum which gave rise to creative artistic urge in producing images of gods and goddesses. Side by side structural shrines came into being for housing these images. Temples with distinctive characteristics duly decorated with superb cult-images of the highest aesthetic standard and of the utmost significance are widely distributed in the valley. They carry a style which for their massive strength and technical accomplishment have few equals³.

The authenticity of written records coupled with the accounts of travellers and archaeological discoveries portray this period of maximum prosperity in the valley. There was extension in the land and in its wealth and grandeur. It rose to prominence and there existed cultural and trade contacts of Kashmir with China, Central Asia, Tibet and other countries.

New agricultural and irrigation methods were employed. Attempts were made to guard the valley against the recurring floods by constructing dykes and embankments. The several times higher frequencies of central pollen from Haigam lake (39 kms from Srinagar on Srinagar-Baramulla road) supports the literary records that there was more intense agricultural activity during this period of history in Kashmir and the population was far greater and the number of villages still larger than today⁴. Obviously the settlements of the period were also wide spread which is further corroborated from the excavations carried out at archaeological sites of Pandrethan (Srinagar), Semthan (Pulwama), Awantipur and Martand (Anantnag), Tapar, Ushkur (Baramulla) and many other places.

During this period there emerged an organised system of kingship depending upon the sacred principle of primogeniture or inheritance. However, during the period of crisis or disorder, the king was elected by a majority of votes in which case people played an important role. At times he was deposed and forced to abdicate in favour of more capable candidates. Once on the throne, he was the undisputed supreme authority and was to work for the peace and well-being of the subjects. There were rulers who patronized learning, spent lavishly in laying out pious foundations, won victories over the northern neighbours and thus extended the territorial limits of the land. There are instances of evil-minded kings who oppressed their peace-loving subjects, spent their time with dice, wine and women, were led astray by the ill-advice of licentious queens, wicked ministers and conspirators in and outside the harem. By the end of the period under review, the crown became an object of jealousy, intrigues and mutual conflicts among the ministers, the queens, warring groups of the society and even between the father and the son. It

became the centre of corruption. Whoever paid the highest bid could snatch it away. The queens bartered their honour for it. Even a street singer became the queen of a king. The gradual degeneracy of the society gave rise to upraising, plunder and massacre. The people rose against the working of the crown and resorted to agitations. The Brahmans who had a say in the affairs of the Government, took to solemn fasts and finally were given powers to elect their own representative who could deliver the goods. Even after having democratically elected Yashaskara in the middle of 1000 B.P., the socio-political set-up of the society could not be set right. The successors of the elected king again resorted to unscrupulous way of functioning the state's administration. Sincere efforts were made to root out the corruption, punish the evil-doers and suppress conspirators and mischief mongers, but the rot could not be checked. The violation of justice by evil-rulers was on increase. The solidarity and integrity of the land had a gradual decay which only after a period of three centuries resulted in the usurpation of the power in the hands of Muslims.

In this period, the best contribution to Indian culture was the origin and the promotion of Sanskrit literature. Interesting works were brought out on poetry, drama, aesthetics, history and philosophy. Kashmir Shaivism, which emerged as a great unifying force, attained a dominant place. The complex texture of the Kashmiri society was interwoven giving it a distinct philosophy of its own. Kashmir Shaivism is cosmopolitan in character and makes no distinction between castes, sex and nationalities in achieving the supreme bliss of Shiva—the absolute God causing creation, preservation, absorption, obscuration and finally revelation⁵. Born in 1200-1100 B.P., Kashmiri scholars nurtured it inspite of numerous ups and down faced by them throughout the chequed history

of the land and thus kept the torch of this blissful knowledge burning through the centuries.

This period of 500 years provides a striking testimony of a unique historical record duly authenticated by archaeological discoveries. It provides a long history of successes and failures, maintenance of justice, or its violation, love of subjects but the cruel ways of exactions from them, grant of endowments but also their confiscations, liberal attitude for execution of charitable deeds but at times the society is known as engrossed with rampant corruption. Along with the successions of highly talented and learned exponents of Kashmir Shaivism, the social structure is reflected by the most regrettable feature of degradation in ideas of decency and sexual morality. The complexity of practices and diversity of creeds could be gleaned from the sculptural and temple wealth of the period under review. Most of which are still visible and bear distinct styles passed through a long process of evolution and elaboration under different dynasties of kings and queens who in different stages were politically supreme.

The study of long chain of historical events of varying fortunes in the political and administrative institutions, social and economic lives, religious and cultural activities of the people in this period makes a very fascinating story. The period following 1000 B.P. was a turning point in the history of Kashmir as it constituted a definite break with the old and ushered in a new system which paved a convenient way for swift changes both in political and cultural history of the land.

Historical Sequence

The great Kushana settlements fell to sudden calamity due to excessive snowfall and adverse climatic conditions. Kalhana attributes the excessive snowfall to the wrath of

the Nagas. This caused distress to Buddhas and thus the historian concludes that the intolerable plague of the Bikshus came to an end⁶. Secondly, the Huna invasion dealt a deathblow to Buddhism in North-western India. In the valley, Mihirkula's brutal action, mass killings and destruction of Buddhist temples and monasteries left the people fear-stricken. Insecurity was the order of the day. The Kidara Kushanas who also included some of the local rulers as well could not regain the glory and splendour of their predecessors despite their pious actions and erection of religious buildings. The chequered history of the period, shows that numerous expeditions and challenges were taken up by the kings or the men who mattered in order to bring about a political and economic stability for maintaining the prestige, status, power and prosperity of their expanding settlements in the valley.

Mihirkula though against Buddhas, was a devotee of Shiva and as such had leaning towards Brahmanas. He brought a good number of Brahmanas from his conquered territory of Gandhara and settled them at *Vijayeshvara* (present day Bijbehra). Being new to the land, he gave them *Agraharas* (tax-free jagirs). He by this liberal action gave proof of his patronage to these migrated Brahmanas as he was defamed among the masses both in Gandhara and Kashmir for his cruel action⁷. On the other hand, a highly organised and politically united culture of Buddhist tradition was losing its hold. No doubt the foreign invasion by Hunas hastened the collapse of Buddhism in the valley but the internal dissensions among the adherents caused by the corruption in public life, lack of decency in sexual morality, belief in magic, sorcery and other licentious practices in Buddhist viharas brought about spiritual decay which also served as a powerful cause for its downfall. The degraded or depraved manners of Buddhists gave expression to violent urge for

obstrepulous sensuousness as is depicted in Buddhist establishments at Gandhara, Harwan and other places in Kashmir, Sanghol in Haryana and Mathura in U.P. Depiction of nudity, eroticism, dancing, singing, debased forms of bacchanalian scenes and other abnoxious practices associated with women and wine shows the decaying trend of the doctrine of Great Master (Buddha). Erotic and sensual practices undermined the sense of moral values⁸.

The Brahmanas right from the beginning showed liberal attitude towards other powerful religions. They in order to have their firm foothold in Kashmir, the country of Nagas, offered oblations and thus were successful in pleasing the king of Nagas, *Nilā* who in turn removed the affliction of excessive snowfall, brought about rapprochement between the two sects. The Brahmanas adopted some of the essential doctrines of Mahayana Buddhism like the worship of images, acceptance of the principle of *ahimsa* (non-violence) and laid stress upon the faith and devotion to Buddha and Vishnu alike. Terracotta images of Buddha were prepared on his birthday and worshipped as an incarnation of Vishnu according to the rites prescribed in Buddhist texts.⁹

Many local and foreign rulers occupied the throne of Kashmir during the period under review. However, the Buddhist doctrines like non-attachment to worldly affairs, of *ahimsa* (abstention from the slaughter of animals) were not altogether abandoned.

Mention may be made of one Samdhimat Aryaraja who was a pious ruler. His peaceful attitude was not liked by the people and he suffered a long imprisonment and even death at stake. Due to spiritual powers of his Guru, Ishana (present day village of Ishbar near Nishat garden in Srinagar is named after him), he was brought to life again. The news of his miraculous restoration to

life spread like a fire in the kingdom. The people from all walks of life now realized his greatness, piety and non-attachment to worldly desires, crowned him as the king. Being a devotee of Shiva, he built many shrines in the name of the lord.

Samdhimat Aryaraja was succeeded by Meghavahana who was brought from Gandhara. He too was noble-minded and surpassed the noble acts of Bodhisattvas even¹⁰. In a striking coincidence with the teaching of Gautama Buddha, he prohibited the killing of living creatures. The butchers, for leading a sinless livelihood were granted funds from the treasury. He left for the conquest of other regions in order to persuade the rulers and the subjects of those lands to abstain from the killing of living creatures. He was a worshipper of Brahmanical divinities, but he vigorously followed the Buddhist doctrines. One of his favourite queen, Amritaprabha built a lofty Vihara called after her as Amritabhavana (modern Antibawan). It was meant for the visiting scholars from foreign lands. This Vihara was seen in a flourishing condition by Ou-king in 759 A.D.¹¹.

Of late a votive stupa (terracotta) was found near the present day ruins of the free Vihara. It has an inscription inscribed on it belonging to 5th-6th century A.D., (now in National Museum, New Delhi Collection). After him came on the throne Pravarsena also known as Sresthasena and Tunjina. He adorned the Ashoka's city of Puranadhisthana with various holy establishments.

Another ruler of Kashmir was Matrigupta who flourished in the first half of the Sixth Century A.D. He was a poor poet in the court of King Harsha, alias Vikramaditya of Ujjain¹². He served the king, with devotion and gained his favour. The king, whom the people had asked to protect the land, nominated Matrigupta as the king of Kashmir. King Vikramaditya is

mentioned as the father of Siladitya-Pratapadsila¹³ who ruled over Malwa sixty years before Hiuen Tsang's time which places his reign in about A.D. 580¹⁴. The pious king abandoned the land and abdicated the throne of Kashmir in favour of the local ruler Pravarsena II and himself left for Varanasi to find happiness in seclusion.

With the accession of Pravarsena II on the throne of Kashmir, historical data becomes more authentic. He took up useful expedition abroad. He laid the foundation of a new capital named after him as *Pravarapura* (modern Srinagar). This new capital was laid to the north-west of the old capital of *Puranadhishtana* (modern Pandrethan). He is also said to have built the shrines in the name of Shiva, Ganesha at the foothills of Hariparbat and of five goddesses. The presence of trident or crescent pattern or the images of Lakshmi or goddess seated on a lion on the king's silver and gold coins show his religious bent of mind towards Shiva and Goddess Lakshmi or Durga.

The economic development during this period is evident by the circulation of silver and gold coins. Both the types of coinage show variations. On the one hand these have close connection with the Kashmiri coins, and on the other hand with the coins of Kidaras. However, both the types bear the name of the King Pravarasena, the great ruler and the founder of modern Srinagar city. The legend *Kidara* is invariably written on these coins in Brahmi characters of about the Fifth Century A.D. There is no copper coin of Pravarsena and it appears that the copper coins bearing the name of Toramana were already in vogue and these have been found in large numbers even afterwards¹⁵. Mihirkula, the son and successor of Toramana was a powerful king. He ruled both over Kashmir and Gandhara and the coinage adopted by him had been the model for the later copper coinage of Kashmir. The peculiar style of the coins

bearing the letters *Kidara*, most probably copied from the coins of the Kushanas of Gandhara are found on the coins of Karkotas also¹⁶. He was followed by his son, *Lahkhana-Narendratiya*. On the basis of an unique silver coin, he has been identified with Raja Lahkhana Udhayaditya, an Ephthalite ruler¹⁷. Next ruler who ascended the throne was his younger brother, Ranaditya, whom the people called by the second name of Tunjina. His reign is exaggerated to have lasted for long 300 years. Barring this fantastic version of his reign, he and his courtmen are credited with the erection of many sacred shrines. Then his brave son Vikramaditya became the ruler. The throne was after him occupied by his powerful elder brother, Baladitya. This king married his beautiful daughter, Anangalekha—the wonder of the world—with his petty but charming and witty official of the state who happened to be incharge of the fodder for horses. On Baladitya's death, this official, Durlabhavardhana by name, pleased the people by his polite conduct, sharp intellect, sound judgement and was selected as the king of Kashmir. He thus became the master of fortune of which he could never dream in life. Durlabhavardhana's accession to the throne marks the end of the dynasty of Gonandas. Thus came into being the famous dynasty of Karkotas.

The descent of Durlabhasvardhana is of a miraculous origin. The Karkota Naga, widely worshipped in the valley along with other prominent Nagas¹⁸, cohabited his mother when she had gone to take a bath in a spring. He, being the descendent of Karkota Naga gave birth to a new dynasty known as the Karkota or Naga dynasty.

Apart from the indigenous source of *Nilamatapurana*, Karkotas are described as a non-Aryan tribe¹⁹ and are associated with the desiccation of a lake in Nepal²⁰. On the basis of Avantivarman's recognised date of accession to the throne in 855/56 A.D., Durlabhavardhana's

accession falls in the beginning of 7th century or more precisely in 600 A.D. However, according to Chinese annals of Tang dynasty and the associated events of the kings of Karkota dynasty, there comes an error of 25 years in the acceptance of this date. Kalhana calculated the dates more than five hundred years before his time, this error appears to be small and invests his narrative with a touch of au-thenticity²¹. It appears that Kalhana as in the case of Ranaditya assigned longer periods to some of the Karkota rulers which has resulted in a total surplus of 25 years to the whole²². The date of Durlabhavardhana's accession should then come to 625 A.D.

With the rise of Karkota dynasty, the valley witnessed an unprecedented expansion of socio-economic and cultural contacts beyond the frontiers of the valley. It was one of the glorious periods in the history of Kashmir.

Durlabhavardhana did not rule Kashmir only but over five other states which included Takshasila or Taxila (Rawalpindi region), Ursha (Hazara or Abbottabad district), Simhapura (Salt Range), hill-states of Parnotsa (Poonch) and Rajapuri (Rajouri). The extent of this king's empire is known from the historical account of the Chinese pilgrim, Hiuen Tsang who visited the valley in 631 A.D. which undoubtedly falls in his reign. In the Chinese annals, he is referred to as Tu-lo-pa. The rudely executed coins with a standing king (headless) and a seated goddess bearing the *Sri Durlabadeva* are attributed to him²³. The Pilgrim remained in Kashmir for two years from May 631 to April 633 A.D. for studying Buddhist texts. The king sent his nephew to escort him to Srinagar from his first night's halting place at a monastery near Baramulla. On reaching Srinagar, he was given a rousing reception. His queen built a Vihara which she named after her as *Anangabhavana*²⁴. The

ruler thus gave patronage to Buddhism and the adherents of the faith centred around the holy places²⁵.

Durlabhavardhana was succeeded by his son Durlabhakha also called Pratapaditya II. His name with the legend *Sri Pratapa* is found on the copper coins of two varieties²⁶. He laid the foundation of a township named after him as *Pratapapura* (modern Tapar) on Srinagar-Baramulla national highway. He graced his city by a grand Vishnu temple which he also named after him as *Pratapasvami*. The remains of this temple were excavated during the months of September to December, 1942²⁷.

Pratapaditya II was succeeded by his son, the eldest among the three, Chandrapida. In the Chinese annals, he is identified with Tchen-to-pi-li—the title granted to him by the Chinese emperor after he was successful in defending his kingdom against the Arab aggression in 720 A.D. His power and courageous spirit in opposing the growing menace all alone made the Chinese emperor to recognize him as a great king. He was renowned for his piety and justice. He was highly praised for his benevolent action in granting rightful claim to a leather tanner for his land hut and in giving punishment to a Brahman who had secretly murdered another Brahman by means of witch-craft²⁸. The former felt deep wrath over his humiliation and punishment. He with the active support of king's younger brother, killed by means of witch-craft, the noble king Chandrapida after a reign of eight years and eight months. The fratricide, Tarapida, ascended the throne. He too after a brief reign of four years died through the secret witch-craft used by the Brahmans whom he had oppressed during his inglorious rule. He was then succeeded by his younger brother Lalitaditya, the greatest ruler of the dynasty.

Lalitaditya was a man of remarkable vitality and vision. He was keen to conquer as many regions as he

could and in that mission, his exploits and achievements compare with that of Alexander and Samudragupta. The Chinese annals refer King Lalitaditya or Muktapida as Mu-to-pi from whom the Emperor Hieuntaung (A.D. 713-755) of China received an embassy for inducing him to make a common cause against the Tibetans. His proposal was honoured but no military assistance was sent. He then alone defeated them and also other mountainous tribes. With Yashovarman, king of Kanuj, he defused the growing threats of Arabs. Unfortunately, the imperial ambitions of these great rulers of Kanuj and Kashmir clashed. There was a prolonged struggle between the two great emperors and finally Yashovarman was defeated. His two great poets of the court, Vakpati and Bhavabhuti, by the defeat of their master, became the panegyrists of Lalitaditya's virtues²⁹. He also made numerous expeditions to various regions of India and Central Asia. After Yashovarman's defeat, Lalitaditya became more enthusiastic in his conquests and started for a *digvijaya* (worldwide campaign). His frequent campaigns in Central Asia, probably beyond into western Gobi region, cost his precious life. His prestige was strong enough to maintain peace and good-will in such a vast empire. His period as a ruler of Kashmir is of key importance for the history of India³⁰. His victories were observed as a festival in the valley for many centuries.

Lalitaditya with the resources at his disposal both in money and artistic genius obtained by him during his numerous successful campaigns laid the foundations of towns at Parnotsa (modern Poonch), Lalitapura (modern Litpor), Parihasapura (modern Karewas of Parspor and Divar) and is credited with the erection of numerous sanctuaries in the valley which served as a model for many centuries after him. His grand and chief capital

city of Parihaspura was embellished with a group of temples, chaityas, stupas and monasteries adorned by fascinating images. In art, architecture and in the wealth of figure sculptures, both in the exterior facade or in the interior of the shrines, Kashmir witnessed a golden era during his reign. The unique architectural production and the projection of sculptural grandeur is witnessed in Lalitaditya's temple of Martanda situated against an enchanting environment on a lofty plateau overlooking the village of Matan (known as Bhavan). A large hoard of his coins have come to light in different parts of India especially from United Provinces³¹. The coins bear the legend *Shri Pratapa Ki* and *dara* in between the legs of seated goddess³². It appears that after his victory over the powerful King Yashovarman of Kanuj, he gained prominence and took the title of Pratapaditya also in addition to his own name³³.

Lalitaditya took many measures to improve the irrigation system of the land. King Lalitaditya was a patron of learned men and poets also. He brought Vakpati, Bhavabhuti and other poets to his kingdom after Yashovarman's defeat. With all the magnificence of this great king, there were two incidents which refer to the dark side of his character.

On one occasion while in the company of the ladies of seraglio and in a fit of drunkenness, he ordered to burn the city of Pravasapura. He regreted his folly when his intoxication had passed away. The king then ordered his ministers that they should not carry out any orders which he might give them while drunk. In an another case, he mercilessly murdered the king of Gauda who was initially promised a safe journey to the valley. The same fate took place for the deceased king's followers who wanted to take revenge for the death of their master. The achievement of Gaudas surpassed even that of the creator³⁴.

The landed class known as Damaras became very powerful during his reign but he could not crush them completely because of his death away from his kingdom somewhere in a expedition in the north.

Soon after his death in about 761 A.D., the integrated forces collapsed and his sons quarrelled with each other as a result of which the empire so boldly built by him disintegrated within few years.

The sons and successors of this illustrious king barring his grandson Jayapida, were weak and inactive. Kuvalayapida, the eldest son of Lalitaditya ruled for a brief period of a year and a half month.

Kuvalayapida was succeeded by his next younger brother, Vajraditya also known by the name of bappiyaka and Lalitaditya. He was of cruel character and ended his life through phthisis caused due to excesses in sexual enjoyment. He was followed by his son Prithviyapida who was soon overthrown by his own step-brother born from the second queen of his father called Samgramapida I. After his death the youngest son Jayapida, of the late King Bappiyaka, ascended the throne.

The early part of King Jayapida's reign is a very eventful period. He collected a large army and emulated his grandfather, Lalitaditya, in the conquest of foreign lands. He defeated five Gauda chiefs of Paundravardhana, a place near present district of Rajshahi, Bengal³⁵.

Jayapida was also fond of learning and patronised a number of scholars. He reviewed the study of disused Patanjali's *Mahabhashya* with the help of competent compositors from abroad. He adorned his court with a number of learned men. Besides, his chief court poet, Bhatta Udhata, there were other scholars of eminence like Damodaragupta, Sankhadanta, Manoratha, Cataka, Samdhimat, Vamana and others³⁶.

The marshy and low-lying area near the village of Sumbal in district Baramulla was developed. Here he laid the foundation of his capital named after him as Jayapidapura or Jayapura (modern Anderkot). He built a Vihara and a temple here. The ruins of the temple are still scattered in the village.

King Jayapida struck his own coins with a standing king and the goddess. The legend *Sri Vinayaditya* (the king's other name) is written on the obverse and the words *Jayati* and *Kida* on the reverse³⁷.

In the later years of his reign, there was a sudden change in the attitude of the king. From a generous and liberal human being, he became tyrant and depraved. He levied oppressive taxes, deprived the cultivators of their hard earned stock of food stuff and confiscated the land grants of the Brahmanas. He received serious injuries which ultimately took his life.

The Karkota rulers, who flourished after Jayapida, proved to be worthless both as human beings and as kings. After Jayapida, his son Lalitapida became the king. He was a slave to passions and squandered the wealth of the land in useless pursuits. After him, his brother, Samgramapida II also called Prithivypada ascended the throne. He was then followed by Cippatajayapida also called Brahaspati, the son of Lalitapida (Jayapida's eldest son) born from his concubine, Jayadevi, the daughter of a spirit-distiller. Being a minor, he became a *de facto* ruler while as the royal authority was exercised by his five material uncles, Padma, Utpala, Kalyana, Mamma and Dharma. All the five brothers shared the king's power and the riches. Then they conspired together and got him killed. Another puppet king, a nominee of Mamma called Anangpida, son of Samgramahida II, was made the king. The brothers with their descendents wanted to get more and more benefits from the masterless kingdom, like wolves on a dead buffalo in the desert³⁸

The son of Utpala, Sukhavarman, was hostile to the installation of the king with the power of Mamma. Soon after the death of his father, he raised a successful rebellion and placed his own nominee, Utpalapida, a son of Ajitpida, on the throne.

Sukhavarman, an energetic man, was about to take over the royal position of the king but unfortunately was killed by his treacherous relative, Shuska by name, out of hatred. At this critical juncture, the learned, efficient and a capable minister of the royal court, Sura, took his own decision in declaring Avantivarman, the able son of Sukhavarman as a fit choice for the throne of the land. With the accession of Avantivarman (855/6 A.D.), the Karkota dynasty came to an end.

The greatness and the dignity of Lalitaditya's prowess was almost destroyed by the successors of Jayapida mainly due to court intrigues and lust for power and money. The vast territory conquered by Lalitaditya and his grandson Jayapida Shrank and the country was left in a miserable condition.

The history of Kashmir presents a truly datable records of the events from the time of Avantivarman's accession to the throne of Kashmir.

Avantivarman, the founder of Utpala dynasty was faced with the colossal work of economic reconstruction and the suppression of troublesome but powerful Damaras. His one of his faithful minister killed the Damara chief Dhanva of Lohara (modern Lar district).

Free from the terror of Damaras, Avantivarman with the council of his two able ministers Sura and Suryya took speedy measures to reduce the sufferings of the people and recover their lost economic status. The standing crops were invariably being damaged by the frequent floods as the water of river Jhelum could not flow out with reasonable swiftness. Suryya then took

systematic measures to check the repetition of such calamities.

He took up dredging operations in the river by removing the silt, rocks and the accumulated material within it and deposited these on either sides of the river right from Khanabal, the highest navigable point, upto its course above the Wular lake covering a distance of more than 50 miles with a width varying from two or three to fifteen miles³⁹. The water level in the river deepened due to raised-up beds or the well-defined boundaries, the Wular lake could safely receive the surplus water of dangerous floods. The raised-up beds stand even now as natural boundaries not only for regulation of water but also as natural boundaries. Besides the regulation of water, these also serve as protective embankments from floods. The engineer is still remembered in the flourishing town of Sopore (ancient Suryyapura), built on either sides of the Jhelum a few miles below the point where it leaves the Wular lake. The town was founded by him. So also the name of his another trustworthy minister Sura's name is survived in the town of Hirpur (ancient Surapura, also founded by him) situated on the route leading to the Pir Panjal pass and at a distance of seven miles from Shupian. The place was of considerable importance during Mughal times. At present, the Hirpur locality represents the earliest formation of Lithostratigraphy and Depositional environment of Karewa Lake stage exposed in the extensive section along the Rembiara (ancient Ramanyatavi) river defined by geologists as Hirpur Formation. The study of the exposed records here have made it possible to analyse the environmental changes and past climate in a definitive time frame based on Physical methods of dating from early Pliocene to close of the Lower Pleistocene⁴⁰.

The King and his ministers built numerous religious buildings indicative of a dynamic period of peace, stability and economic prosperity of the settlements. He revived learning and honoured learned men with the membership of the *Sabha* (Assembly) to which they went in vehicles worthy of kings. The scholars who flourished at that time were Anandavardhana, the poetician, Shivasvamin, Ratnakara, *Muktakana*, the poets and Kallata the Shaiva Philosopher.

Avantivaraman was succeeded by his son Shankaravarman. He conquered the territories of Darvabhisara (the area lying between Vitasta or Jhelum and Chandrabhaga or Chenab) including the hilly regions of Rajouri and Bhimber, Trigarata (the present Kangra district) and Gujara (modern Gujarat, W. Pakistan). He also tried to put down King Lalliya, identified with Kallar, the founder of Hindu Shahiya dynasty of Kabul⁴¹. In this endeavour, the king Shankaravarman did not achieve any remarkable success.

King Shankaravarman laid the foundation of a township called Shamkarapura after his own name. This town is identified with the modern town of Patan, a large commercial village, 17 miles north-west of Srinagar on Srinagar-Baramulla national highway. Here the king and his queen Sugandha built two graceful Shiva temples, Shankaragurisha and Sugandhesha named after them respectively. The architectural features, plan or the shape of these temples do not differ from other temples built before these⁴². The ruins of the temple built by his minister Ratnavardhana have recently been located among the bushes and jungle growth on the footpath leading to the Neolithic site of Kulladour on the left side of the national highway⁴³. In that case, the miniature temple built in the spring on the other side of king's temple is not associated with the name of this minister⁴⁴.

The architectural details of this miniature temple suggest its construction to a later date⁴⁵ when the fine spirit of temple construction on a grand scale had gone out of gear.

The expenses wasted on the wars compelled the king to levy taxes on the people, on temple endowments and on priestly corporations. He even claimed the state-share from the sale proceeds of incense, sandal wood, flowers and other articles of worship. New types of taxes were charged and for speed and prompt collection of revenue, new officials were appointed. Excessive demands were made for forced labour from the cultivators for which they were greatly oppressed. Still the men of learning were left without emoluments. Only the rapacious sections of the society, *Kayasthas* (effective clerks or officials of the court and state) got the baneful effects of king's infamous regime.

He died away from his land, when he was on a foreign expedition. He was brought to his land where in a befitting manner, last rites of the king were performed. Barring queen Sugandha, three other queens and equal number of favourites and servants also ascended the funeral pyre of the deceased king.

Sugandha, the devoted queen of the late king, installed on the throne, their minor child, Gopalavarman under her own guardianship.

Gopalavarman, the new king, was too young to tackle the administration of the state. His widowed queen-mother, Sugandha, a woman of dissolute character bore efficiently the brunt of the heavy responsibilities of the government. She, however, became addicted to sensual enjoyment and bestowed her favours on his minister Prabhakaradeva, incharge of State's exchequer. Gopalavarman died after only two years of reign and was succeeded by his younger brother, Samkata, a

supposititious son of Shankaravarman. The poor boy lost his life only after 10 days and with his death ended the lineage of Shamkaravarman. Then Sugandha herself, assumed the royal power in 904 A.D. She could hardly remain on the royal throne for two years. She was troubled by the growing menace of two para-military tribes called Ekangas and Tantrins. She then selected her nominee, Nirjitarvarman, son of Sukhvarman, as the king but Tantrins opposed the move.

On the plea that Nirjitavarman, was nicknamed Pangu (the lame one) because after spending the night in dissipation, he sleeps all day and was unable to get up⁴⁶. They instead made his son, Partha, a child of ten years, the king. Installation of Partha (906 A.D.) not only deprived the queen of her royal power but Tantrins also took revenge from her paramour, Prabhakaradeva, who had dishonoured them in the past. Humiliated by such events, the queen left the capital and went to live in peace at the then flourishing town of Hushkapura (modern Ushkur) in Baramulla.

She was, however, persuaded by the other group to claim the throne again to which she agreed. She returned after eight years (914 A.D.) at the head of an army but was defeated, imprisoned and killed.

Nirjitavarman, the father of the child-king Partha, could maintain the guardianship of his son by paying huge sums of money to corrupt ministers and Tantrins. The crown had to be changed at frequent intervals depending on the sweet will of Tantrins.

In 921 A.D., the Tantrins dethroned Partha and put his father Nirjitavarman on the throne. He died only after two years (923 A.D) and installed his child-son Cakravarman under the guardianship of his mother and grandmother till the year 933/4 when he was deposed and instead crowned his half-brother, Suravaman I as

the king. The new king could not pay the promised amount to the Tantrins and was dethroned in 935 restoring Partha once again on the throne. In the meantime a higher bid for the throne came from Cakravarman and he was once again installed as the king in the year 935. He could enjoy the royal dignity only for a short period as he failed to pay the desired amount of bribe to Tantrins and had to leave the country. The Tantrins received a higher bid from one of the minister, Shambhuvardhana and he was accordingly placed on the throne in that very year in place of Charavarman.

The deposed Cakravarman sought assistance of Damara chief Samgrama who entered into an agreement with the former. Damaras from this time onwards formed a formidable force, played their part as 'King makers' and as such constituted the main opposition group of the government. Supported by the Damaras, Cakravarman set forth to regain his lost throne. The Tantrins were defeated in a fierce battle and Cakravarman became king for the third time in the year 936.

Cakravarman could not retain his kingship for long. He gave himself to vile cruelties and excesses. The Damaras then, through a conspiracy, got him killed in the chamber of the Domba girl in the year 937.

After him next king Unmattavanti, the wicked son of Partha was made the king by the foolish ministers. He surpassed his predecessors in the acts of cruelty and immoral acts. Parvagupta, one of his ministers desiring of capturing the throne for himself, made the mad king, as he was called, to destroy his own family. He imprisoned the young sons of his father, his half brothers and starved them to death. He then killed his father Partha, who was living in Jayendravihara, with his wives on the food offered to them by the Buddhist monks. After two years, the king died. His death came as a boon not only to his subjects

but also to the fourteen queens of his seraglio⁴⁷. After Unmatanvanti. Suravarman II was installed as the king only after a few days. His commander-in-chief Kamalavardhana rose against the royal authority and took hold of the capital. The king left the city and fled away. Kamalavardhana, though without any opposition, acted foolishly and did not ascend the throne. Instead he collected all the Brahmanas and convassed them in his desire for the royal power. The Brahmanas debated the question of succession for a week. The Brahmanas with a majority vote selected a learned Brahman, Yashaskara, a son of Prabhakaradeva, a former minister. The new king could claim neither a noble lineage nor the lustre befitting the king and yet the choice of the Brahmanas fell on him because of his learning, ability and suitability. With his ascent on the throne of Kashmir, the rule of Utpala dynasty came to an end and the valley came under the supremacy of Brahmanas.

Yashaskara ruled the country for nine years from 939-948. He restored peace and order. The people after a long period of turmoil heaved a sigh of relief. The officials who had plundered the royal treasury in the previous regimes were kept under check by the king. The land was free from robbers. The people in general admired the king for his noble actions and prudent judgements.

The king owned his crown to the liberal judgement of Brahmanas. He granted them fifty-five *agraharas* (rent-free land for cultivation). Himself he built on a piece of his father's land a *matha* (monastery) for the students of *Aryadesha* (probably north-India) for acquisition of higher knowledge.

The king, unfortunately, in the later years of his reign fell prey to moral degradation and mixed freely with the Dombas, Chandalas and other lower classes. Even his queens lost the sense of morality.

Yashaskara was seized by an abdominal disease and nominated Varnata, the son of his paternal grand-uncle, Ramadeva, as his successor over and above his own son, Samgramadeva whom he suspected that he was not begotten by himself. The king's nominee was accordingly consecrated as the king by the ministers, Ekangas and feudal chiefs to whose care he was entrusted by the dying king. Varnata out of his foolishness did not pay visit to the dying king who had given him the crown. He did not even enquire about his condition though he was in the palace. He as such earned the king's displeasure and being dismayed over the behaviour of Varnata, the king, in his fainting state and on the insistence of ministers, granted the throne to his son, Samgramadeva.

Samgramadeva could remain on the throne for few days only. Parvagupta, the minister who was after the throne since the days of Unmativanti, collected troops on one snowy night and killed the king. He then seated himself on the throne in 948 A.D. Pravargupta who had risen from a low rank of clerks, could have proved a good administrator but in doing so, he oppressed his subjects by levying undue tax and thus accumulated treasures. With his ill-gotten wealth, he built the temple of Shiva which he named after himself. His violent deeds gave rise to agitations and the foolish king who had obtained the crown through treacherous methods was seized by dropsy and died in the year 950 after a short reign of hardly one and a half year.

Parvagupta was succeeded by his son Kshemgupta who was weak and licentious. He was surrounded by group of parasites and drunkards who plundered the riches of his treasury.

Kshemgupta's memorable event of his eight year's reign (950-958 A.D.) was his marriage with Didda, the daughter of Simharaja, the king of Lohara, modern

Lohrin in Poonch district of Jammu province adjoining Kashmir to the south of Pir Panjal range between Tatakuti peak and Toshmaidan pass. She was also the grand-daughter (daughter's daughter) of Bhima Shahiya, a Brahman king of Kabul. Kshemgupta's marriage with Didda was of tremendous political significance as it paved way for the Lohara family to have sway over both the kingdoms. It also brought about a union among the royal families of Kashmir, Lohrin and Kabul.

Kshemgupta was so much infatuated by her that he added her name to his own on the coins issued by him. The letter *Di*, the first syllable of the queen's name was followed by the first part of the king's name *Kshema* and the coins with this name *Di Kshema* are extremely common while as the single-name coin is unique⁴⁸. It shows that she occupied a powerful position in the court. This is also clear that her grandfather built a Vishnu temple in the valley because of her influence and patronage. Richly endowed with sculptures, this temple is now converted in the famous ziarat of Baba Bamdin Sahib, a disciple of renowned saint of Kashmir, Sheikh Nur-ud-din. It is situated about one mile to the north of sacred spring of Bhawan and on the left bank of Lidar river on Srinagar-Pahalgam road⁴⁹.

Queen Didda was a remarkable lady. She was cruel, suspicious, licentious but at the same time had political sagacity and administrative ability. She had received ample training in diplomacy and statesmanship under her father⁵⁰. She is often discredited for the lust for power but the close study of her actions during the long period of half a century would make it out that she saved the kingdom from being disintegrated even at the cost of her nearest blood relations.

After an inglorious reign of eight years (950-958), king Kshemgupta died and kingdom passed to his son

Abhimanyu II. Queen Didda acted as a regent and exercised herself all the royal powers. In the early years of her regency, she had to face revolts and troubles.

The situation was however brought under control. The rebels were captured, executed and their families exterminated. In doing so, the faithful Naravahana, her minister made the queen to acquire power over the whole land. In token of gratitude for his devotion, he became the chief councillor with the title of *Rajanaka* (an officer of the state who distinguished himself by his devotion, selfless service and virtues). A *Rajanaka* assists the ruler in distinguishing between right and wrong. He is described as a pillar in fortitude who diplomatically fulfills his duty at the court⁵¹.

Abhimanyu fell victim to consumption which finally claimed his life after being on the throne for 14 years (958-972). He was succeeded by his young son Nandigupta.

Didda was terribly shocked at the demise of her only son Abhimanyu and this tragedy temporarily changed her outlook on life. Her ferocious nature changed. She became more compassionate and engaged herself in founding towns, religious establishments (both Brahmanical and Buddhist) and in other such charitable deeds. She laid the township of Diddapura and embellished it with the temples of Vishnu named after her own name. Vishnu temples were built by her in the name of her deceased son and father. In the memory of her husband, she laid the foundation of a large town called Kankanapura (modern Kangan). She also built a *matha* or a convent as a resort for the people of Madhyadesha (Central India round Kanauj), Lata (the country between Narbada and Tapti) and Saudotra, or probably Saurashtra (Gujarat). This national institute named after her as Diddamatha was built on the right bank of river Jhelum between the sixth and seventh bridges. It has left its

name to the locality known as Didamar (present day Khankahi Sokhta) where the outer walls of the building together with the long series of stairs and the gateway facing the east are still extant. This gives clear testimony to the presence of highly developed settlements with diplomatic, commercial and cultural contacts with the regions outside the valley. The remarkable and elegant bronze image of Padmapani accompanied by his two Shaktis (now in display in S.P.S. Museum, Srinagar) bears an inscription mentioning its consecration in the reign of the queen. The production of such images and the erection of Buddhist shrines is a clear proof of her secular outlook even if she herself was the devotee of Vishnu. This religious fervour arisen in her after the death of her only child, Abhimanyu, was shortlived. She again gave vent to her lust for power. She killed her little grandson, Nandigupta, in 973. The same fate awaited her second grandson, Tribhuvana, who too was killed after being on the throne for two years (973-75).

The cruel queen then put without hesitation her last grandson, Bhimagupta, also on that path of death which bore the name, *throne*⁵².

A well-built, intelligent and handsome herdsman of buffaloes, a Khasa Gujar from the hills of Parnotsa (Poonch), Tunga by name, had come to Kashmir along with his five brothers. He soon secured a job as a dak-carrier in which capacity he was once seen by the queen in presence of her minister of foreign affairs. The pleasing appearance of Tunga fascinated her and she fell in love with him though she had already many paramours. Undaunted by opposition, she now openly carried on her amorous affairs with him. Tunga received undue favours from the queen and was elevated to the post of prime minister and all his five brothers were also appointed on suitable posts in the state. Tunga's fortune filled former ministers with dissatisfaction and discontent.

The Brahmanas were united by priests and others causing uproar everywhere. They searched daily different places for Tunga whom they wanted to kill. Sensing danger to his life, queen Didda hid him in an apartment with closed doors. During this period, she took recourse to her cunning diplomacy. The Brahmanas were bribed and thus the uprising was silenced. After this incident, Tunga earned great honour and reputation by leading a successful expedition against Prithvipala, the valiant king of Rajapuri (Rajouri) who had shown arrogance towards the crown of Kashmir. He was defeated and in his helplessness paid tribute to Tunga. The queen then honoured Tunga by appointing him the commander-in-chief of the army in addition to his being the prime minister. In his capacity as the supreme commander in charge of the army, he annihilated the hosts of Damaras.

Rejoicing on her triumph over both foreign and domestic enemies, queen Didda was at leisure to think of her successor to the throne of Kashmir. By now, she had become old enough and was worried about the future of her kingdom when she was herself actually responsible for the end of her progeny. She, therefore, wanted to instal a capable prince on the throne before her death. She had a long and minute study of the actions and intelligence of the sons of her brother, Udayaraja, the ruler of Lohara, who had many sons. She for this purpose called all the sons of her brother from the hilly region of Rajouri at her own court, she selected one Samgramraja as the future ruler of the land after she personally tested his sharp wit, judgement and diplomacy⁵³. The nominated prince ascended the throne of Kashmir on the death of queen in 1003 A.D. In this way, the change of power went to Lohara dynasty without even shedding a drop of blood. This far-sighted wisdom to regulate the problematic issue of heir-

apparent to the throne of Kashmir without resistance or opposition from any quarter reflects her popular image even if she was breathing last breath of her life.

Queen Didda was a lady of curiosity. Being the last ruler of the period under study, she is one of the remarkable personalities not of only, medieval period of Kashmir but of the Indian sub-continent also. She took up the reins of the government, first as the chief queen of her unscrupulous husband, next as regent of her son, grandsons and lastly as an independent sovereign authority and despite external threats and internal disorder because of rebels, intriguers, growing menace of warring groups all being after the occupation of the throne, she could manage the affairs of the state by her wise judgement, by bribing some, by favouring energetic and potential persons, by elevating her faithfuls and at times even humiliating or dismissing or exterminating them. She knew that the throne of Kashmir was the den of conspirators and unpatriotic elements and killed her own three grandsons one after the other for which she is known as a 'Terrific Woman' but on the other hand, her inner desire to commit *sati* after the death of her husband in keeping with the then living traditions, her repentance over the death of her only son or in the erection of religious shrines and inns for the local students and foreign scholars and pilgrims and finally her keen search to find a capable successor to her belonging to a royal dynasty, certainly demonstrates that whatever she did, she did that for the good of her homeland and for preserving the integrity of the kingdom. Through storms and stresses, she dominated the politics of Kashmir for half a century and because of masterful prudence 'she could turn many near-defeats and failures into victories and successes'⁵⁴.

The study of historical events for the last century will show that the valley could not maintain the grandeur,

lustre and spirit of patriotism of rulers like Lalitaditya, Jayapida, Avantivarman and Shamkaravarman. It is clear that mostly wicked, scoundrels and immoral persons occupied the throne after the death of Shamkaravarman. Hardly a day passed in peace, the throne of Kashmir was a covetous symbol among many claimants whether they were from the royal blood or outside. It was marked by jealousy, conflicts and intrigues between individuals, between warring groups of Tantrins, Ekangas, Damaras, corrupt officials, Kayasthas, between the ruler and his ministers, between the queens, sons, father and relatives. Only a dynamic ruler like her with statesmanlike instinct and political ability could bring about a sense of solidarity among the masses sometimes with violence and sometimes without. The valley once again came to be known as the greatest empire of the age by the middle of 1000 B.P.

Social Structure

The period between 1500 B.P. to 1000 B.P. was marked by the predominance of Brahmanical order against the rival faith of Buddhism. In the valley the traditional castes or *Varnas*, the fundamental aspects of the social system of India are sparingly met. Apparently no distinction was recognised so far as the status of individual castes was concerned. However, besides Brahmanas, during the period under consideration, several low caste people existed whose social system was distinct by sharp inequalities. The popularity of Buddhism was losing its momentum while the Brahmanical religion in all its variety of sects was gaining ground in every sphere of social life.

There had been immigration of Brahmanas from India into the valley from very early times. They were particularly commended as the object of a king's care from whom they received gifts and endowments. There are a

long series of rulers who bestowed on the Brahmanas *agraharas* or rent-free lands. Sometimes the revenue was assigned to the Brahmana corporation or religious institutions or even to individual Brahmanas. The largest number of *agraharas* were bestowed upon Brahmanas from Gandhara by Gopaditya and Mihirakula. The former ruler's *agrahara* is the fertile plateau at the eastern foot of Shankaracharya hill known to this day as Gupkar after the name of the donor king. So also thousand *agraharas* were bestowed by Mihirkula on Gandhara Brahmanas at Vijayeshvara (modern Bijbehara). Meghavana established the *agrahara* for Brahmanas which was distinguished for its wealth and prosperity. His wife built a lofty Vihara called after her as *Amritabhavana* Vihara (modern Antabavan) for the stay of Buddhist monks. Baladitya created an *agrahara* for the Brahmanas gifted with riches. His successor and the founder of famous Karkota dynasty, Durlabhavardhana after paying honours to Brahmanas donated the village of Candragrama in the castle of *Parevisoka* (modern Divasar). King Lalitadiya Muktapida, built numerous monasteries and granted the land and the village to the shrine erected in one of his capital city, Lalitapura (modern Latpor). A grant of land and adjacent village was bestowed by him to his lofty temple of Shiva known as Jayeshtarudra identified in the Wangath hamlet towards the south-east of mountain peak of Harmukh better called 'Naranag group of temple'. In this way, the cultivators and the artisans were also transferred along with the villages to donees who were none else but priestly faction of Brahmanas. Avantivarman, the liberal ruler of Utpala dynasty built new temples endowed with lands. Shamkaravarman resumed the *agrahara* lands of the temples against a compensatory assignment and then cultivated the land himself as if he was himself a cultivator. In such cases, it is evident that the donor donated not only their revenue but also the

right to govern the villages once granted. Brahmanas accepted these grants even from wicked and cruel kings like Cakravarman and Unmattivanti. Yashaskara (1061-1052 B.P.) who owned his crown to the sweet will of Brahmanas granted them fifty-five *agraharas* furnished with various implements. The last ruler of the period, Queen Didda, also laid the foundation of sixty-four shrines which included, like her predecessors, both Brahmanical and Buddhist buildings⁵⁵. As such not only Brahmanas but Buddhist monks also benefited by these endowments. These authentic records imply that Brahmanas were regarded as the most honoured and privileged caste of the valley. Apart from *agraharas*, Brahmanas were lavishly provided with skins of black antelopes (for use of their religious ceremonies), cows with calves and other presents⁵⁶.

The Brahmanas were mostly literate. They performed religious rites, served as priests of the temples and taught sacred texts. The priests enjoyed the revenue of the village donated to the temples and also supplemented their income by selling flowers, incense, sandalwood and other material of worship to the devotees on their visits to the abode of gods. The donors felt obliged by giving generous gifts to Brahmanas while performing religious functions. The Brahmanas had formed their own corporations which were regarded as autonomous bodies big enough to influence the social and political institutions. Their decisions could not be easily disregarded by the rulers. Any attempt to disturb them provoked resistance. If and when they entered upon a solemn fast or a hunger strike, both the kings and the subjects became nervous. It was an effective instrument to threaten the authority of the state. The *purohitas* (priests) among the Brahmanas enjoyed special position. They were asked to perform rituals leading to the victory of the king in the battlefield or to ward off natural

calamities like fire, flood, famine, disease etc. They functioned as assistants at all the royal assemblies or at the worship of weapons and other royal functions. The royal priest was to promote the stability of the kingdom.

Over and above these occupations, the Brahmans held high positions in the state as kings, ministers, chief councillors, feudal chiefs, advisors and at times took up their occupation in the army. Ignoring the claims of other claimants, they raised on the throne a Brahman, Yashaskara who was known for his judicial sagacity and administrative capabilities. The Brahman Mitrasharman was the foreign minister of King Lalitaditya. His son Devasharman was the minister of King Jayapida and his chief councillor was the famous poet Damodaragupta. The highly paid and learned *Sabhapati* (Chief of the Assembly) of King Jayapida was Bhatta Udhata. Rakha, a Brahman foot-soldier but of well-known valour, was the commander-in-chief of the army⁵⁷. Bhatta Phalguna was the councillor of King Yashaskara, Kshemgupta, Abhimanyu and prime minister of Queen Didda. Kalhana, the author of the historical text, *Rajatarangini* (the river of kings) was himself Brahman and his father Campaka, too was a Brahman holding the post of *dvarpati* (lord of gate) in 1089 B.P. the post next to that of prime minister. Like Rakha, another son of Brahman Samanta, Bhujang by name fought with King Samgramaraja, the nominee and successor of Queen Didda. Brahmans, therefore, gladly took up the military career also and in many cases made excellent projection of their valour and martial skill.

The Brahmans had a hold in the society. A Brahman even if proved guilty was exempted from capital punishment. He could, however, be banished or humiliated in accordance with the law and branded with a dog's foot on his forehead⁵⁸. Towards the close of his

reign, Jayapida, the ruler of Karkota dynasty oppressed the people by his fiscal exaction. The Brahmins opposed it and the king reacted to it strongly. Numerous Brahmins died by voluntary starvation. On the whole, the Brahmins enjoyed their privilege more as compared to others. In course of time, this gave rise to fraudulent traditions. They lost the high spirit of austerity and became money-minded. In the middle of 1000 B.P. when the Brahmins held *prayopavesha* (solemn fast), even the bold and diplomatic ruler, Queen Didda, became shaky. She won them by offering huge sums of money as bribes. This reflects their deplorable character for monetary gains for which they had to pay the highest price after the rebellion was suppressed. They did not hesitate or feel ashamed in staying in the palace of the sinful king Cakravarman (1063-64 B.P.) who after an intercourse with the outcaste woman, had dishonoured also the chaste wife of a Brahmin engaged in a monthly fast, on a false presumption that his sin of his previous intercourse with the impure person would be removed. Those sinful Brahmins took food in the palace and even accepted *agraharas* (endowments) from him. They also used to take recourse to the treacherous method of killing kings, queens and others by the heinous practice of witchcraft, in which the Kashmiri Brahmins had acquired efficiency. The tradition still persists.

Except Nilamata Purana, not much is known about different *varnas* (castes). There was no discrimination against the lower *varnas* (castes). In the annual coronation ceremony of the king, Sudras and Vaishyas took part along with the Kshatriyas and Brahmins⁵⁹. The king and the Carmakara (a worker in leather goods) were to be equal before the eyes of *dharma* (righteousness). The low-paid workers and artisans were taken to belong to the Sudra *varna* (caste). The householder took feasts and enjoyed in

the company of his family and the servants. The people irrespective of their castes exchanged gifts during Mahimana celebrations⁶⁰. Mahimana festival is held in honour of gods and deceased persons on the eight day of the bright half of Phalguna (after Shivratri festival). Fasts are held and in the evening earthen lamps are lighted and placed on the snow, on the walls of the compound and the windows of the houses. They also worshipped the goddess Bhadrakali in the temple of Durga on the eight of the dark half of Ashvina (Assuj) without any restriction⁶¹. This reflects the traditional outlook of equality for all sections in the society held sacred by the Kashmiri Hindus. They displayed remarkable capacity for assimilation and absorption.

The other classes of castes who have played a great part in the polity of Kashmir during this period include Nishadas, Damaras, Dombas, Candalas, Kayasthas, Kiratas, Khasas, Dards, Bhauttas, Ekangas and Tantrins.

Nishadas were the wild aboriginal tribes whose main occupation was fishing and hunting. In the society they have occupied a very low position in the valley as these have been associated with the boatmen (*hanz* in Kashmiri). Inhabiting the river beds, they predominantly indulged in fishing and on special occasions would go in for hunting of the nearby hilly regions. Their output constituted the cherished non-vegetarian diet of the people.

Damaras belonged to a territorial belt of the valley and initially earned their livelihood by arms. In course of time, they took up their residences near the foot-hills in order to find new avenues of their earning. They took up agriculture and trade in which they increased their resourcefulness. In the economy of Kashmir, they became a dominant factor by importing much needed goods like salt and metal in exchange for foodgrains and wool. They

thus became a formidable force and frequently posed a threat to the central authority. They would withhold the supply of foodgrains and essential goods in times of scarcity and famine. Thus they possessed a large number of villages including the *agrahara* lands. Against their growing indifferent attitude to the society, the great and tolerant king Lalitaditya, away in distant lands, advised his ministers in the valley that every care should be taken to leave only one year's consumption of food with the villagers and not more oxen than wanted for the tillage of their field. More wealth if acquired by the villagers or cultivators would make them formidable Damaras in a single year and would be strong enough to neglect the commands of the king. This shows the bitter experience of the behaviour of Damaras in and outside the valley as witnessed by the great ruler like Lalitaditya. The directive also indicates the political testament of the king to improve the economic prospects of the land. The turn of events has shown that the man who had surplus food, arms or the landed property, acquired more wealth by trade, took to arms and turned into a Damara.

About the middle of 1,000 B.P. the Damaras became so powerful that they began to play a crucial role in the politics of Kashmir, often acting as king-makers. After losing his throne, King Cakravarman took refuge in the house of Damara Samgrama and with his help and other Damaras, he could recover his throne. After sometime, he tried to alienate them and this imprudent action took his life. Again during the last days of Queen Didda's rule, there was again uprising of these Damaras, but were severely crushed by her trustworthy minister and incharge of army, Tunga. However, their increasing influence in administrative, political and even in social fields was significant and from now onwards, they mattered in all important affairs of the state.

Dombas or Svapakas were low caste class of people. They had taken singing as their profession. They were successful in making their singer girl, Hamsi by name, as the chief queen of King Cakravarman. Some of the clever faction of Dombas, due to her influence in the court, got undue favours from the love-blind king and managed the king's affairs as if they were ministers. The Dombas were seen carrying nets and jungle-folk when in that capacity they used to surround king Kshemgupta (950-58) before the people who saw him roaming about with dogs. Along with other contemporary castes of India, these are mentioned as flute-players and singers⁶².

Dombas are associated with another group of low caste section of the society called Candalas. These served as royal body-guards and watchmen. Sometimes, they acted like an army. Srideva, a village Candala along with other villagers fatally injured Jajja, the brother-in-law of King Jayapida (grandson of Lalitaditya), the usurper of throne when the latter was away on a foreign expedition. In the valley, these were more or less governed by the law of *Smriti* (literary evidence of society dealing with orthodox rites, customs and the life style of various sections of the society). They were treated under a religious ban of untouchability. Their mere touch required purification of the body and the environment around. A terrible conflagration broke out from the market near the Vishnu shrine of Vardhasvamin in the city which destroyed great buildings in neighbourhood during the reign of Abhimanyu (958-72). The fire, it was maintained, purified the land by burning these great buildings as these had become impurified by the contact of kings who had been touched by Dombas and Candalas⁶³. This shows the magnitude of degraded status of these castes in the society.

Kayasthas were an important class of the society. They held a low clerical post and were at times promoted to

very high positions in the state's administration. In whatever capacity they were placed, they engrossed themselves in corruption and dishonesty. The king took them to friends for collection of revenue from the citizens and the villagers but in the process, they used to oppress the subjects by depriving them of all their property and remitting into the treasury only the smallest fraction of what they realised. At times, they would steal the property of the temples and would enrich themselves by forcible collection of articles and cash from the people. Excess of oppression resulted in the resentment of the people and this brought about frequent replacement of crown. These were as such the most ungrateful section of the society. Money-minded members of the society were keen to hold the post of a Kayastha for their future prospects and amass sufficient wealth during the period they held such an office. Any caste member could become a Kayastha.

Another low caste people were Kiratas. They were a barbarous mountain tribe who lived in forests and killed wild animals by raising jungle fires or by the use of traps. They too were looked down upon with contempt in the society.

The other tribal people were Khasas who rose into prominence from very early times. Their settlements were spread on the hilly regions lying in the south and west of Pir Panjal range extending from Jhelum in the west and Kishtwar (anc. Kashtavata) in the south-east. The Khasa families were often settled in the hilly states of Rajouri and Poonch. They happened to be the actual rulers of these regions. Simharaja, the father of Queen Didda and the ruler of Lohara or Loharakotta, the castle of Lohara, was a Khasa so also was Queen's prime minister Tunga, a cowherd from Poonch. Both the territories fall within the Khasa settlements. Because of their close linkship with Kashmir, they succeeded to occupy the crown of the

land by the end of 1000 B.P. The Khasas played an important part in the civil wars. They were employed, it appears, as the heads of mercenaries. The lavish king Khemgupta took thirty six villages from one of the burnt Viharas and gave them into the device of the Khasa ruler for his enjoyment⁶⁴.

Another privileged class of the society were Dards (Skt. Darads or Daradas). Their area of settlement extended from Citral and Yasin across the Indus regions of Gilgit, Cilas and Bunji to the Kishenganga in the north. In the medieval times, they along with other warring groups became trouble shooters for the crown as well as for the people. After their migration from Gilgit, they mostly settled in the villages of Garkon, Dah and Hanu in Central Ladakh (the bottom region of Indus Valley). The inhabitants are known as Brukpas or Blokpas or some have mentioned them as Drukpas. The word Brok or Blok means in Tibetan a high - pasture land and as such these could be highlanders. The Darads after their contact with the Baltis settled in these parts of the valley⁶⁵. These have now been recognized to belong to the original race of Indo-Aryans⁶⁶.

Bhauddas who were of Tibetan descent settled in the valley even before the invasion of the country by the Hunas. They occupied area immediately to the east and north-east of Kashmir comprising the present districts of Dras, Ladakh and Skardu. King Meghavahana's queen Amritaprabha's father's spiritual Guru had come into the valley from Loh or Leh, the capital of the Bhauddas land, Ladakh. In mid-eighth century, King Lalitaditya during his campaign outside the valley, defeated both Bhauddas and Darads. The Hindu rule in the valley of Kashmir was brought to an end by a Bhauddas prince Rinchana who came to Kashmir as a political refugee and proclaimed himself as the King of Kashmir on October 6, 1320 and

after conversion to Islam adopted the name Sultan Sadruddin. These Bhauttas came into the valley through the Zoji-La pass which has played an important part in the political, cultural, commercial and social contacts between Kashmir, Ladakh and Tibet. Beyond Zoji-La, the entire land was designated as the land of Bhauttas.

In changing the social setup of the valley during this period, the warring tribes of Ekangas and Tantrins have played an important part. These were para-military tribes who exercised an effective role in the affairs of the court and state. While the Tantrins formed a military caste of strong organisation distinguished as foot-soldiers, the Ekangas were a body organised in a military fashion chiefly employed for military duties. Along with Damaras, these wielded considerable influence in determining succession to the throne. The Tantrins got the throne for Cakravaman's half-brother, Survarman I (933-934)⁶⁷. Often the groups fought with each other on the question of succession to the throne. Their mutual strife and intrigues supported by ministers, chieftains and pretenders for the throne brought about instability in the land which not only endangered the existence of the ruling dynasty but degenerated socio-economic life of the people.

With the immigration of people from Gandhara and other parts of India belonging to various castes, there emerged in the valley a society where rigid system of caste traditions did not take deep roots. In the medieval period of Kashmir's history, para-military tribes like Damaras, Ekangas, Tantrins and others loosened the bonds of caste system. In order to keep the heterogeneous groups together and for maintaining the stability of the kingdom or its prosperity, the authority of its chief or the king had to be strengthened⁶⁸. There were no hard and fast rules for selection of the king. Any caste member could acquire the kingship. The people, ministers,

queens and the powerful warring groups could make a choice of a king without any restriction for his caste, lineage or status especially when a suitable hereditary claimant was not available.

Aryaraja Samdhimat was elected by the voice vote of the citizens. The people and the minister together selected the pious Meghavahana from Gandhara as the ruler of Kashmir. Matrigupta was deputed to rule over Kashmir by the king Vikramaditya Harsa of Ujjain. Durlabhavardhana, the son of Naga-Karkota and the founder of Karkota dynasty, inherited the kingdom through his wife, Anangalekha, the daughter of King Baladitya, the last ruler of Gonandiya dynasty. His selection to the kingship was approved by the people also because of his polite conduct, sharp intellect and wise judgement. This policy of selecting a suitable successor to the throne was stressed by the illustrious king Lalitaditya. He advised his ministers that if his elder son when placed on the throne turns of violent nature, they should not obey his commands and if that king renounces his life or his throne, they should not lament over that. He thus gave in detail the merits and the qualifications of a worthy successor to his throne⁶⁹. This tradition somehow continued for a long time in the valley. This is clear from the crisis for the succession of the throne when Suravarman II, supposititious son of king Unmattavanti (937-39) was forced to flee by his commander who was eager himself to seek own election as a king. The matter was left to Brahmans who rejected him and elected Yashaskara, a Brahman of obscure origin, not on the basis of his lineage or birth but purely on his ability and suitability. The same spirit and tradition of popular interest was shown by Queen Didda in selecting her successor to the throne. The general agreement by the powerful sections of the society was valued more in the selection of the king than anything else. The virtues of an

ideal king were his nobility, benevolent nature, concern for the sufferings of the people and the spirit of sacrifice and renunciation. Bereft of these qualities, he could be deposed.

Position of Women

The historical events of the period show that Kashmiri women have equally participated along with their co-partners in the field of culture, education, administration and sometimes have reached to the position of eminence. In fact, Kashmir is one of the fortunate states of India where women enjoyed freedom. Studied along with men, erected religious establishments, managed the affairs of the state as regents or as queens and in need of the hour fought in the battle-field so as to maintain the integrity and freedom of their mother-land. They held high positions in the society and their political sagacity or witty judgements have earned laurels for them.

Any religious act or celebration of a festival had to be performed in the company of women. In the Nilamata-purana, it has been stated that on some auspicious days women were worshipped when they had to be dressed, scented, decorated with all the ornaments and then fed to their heart's desire. On 13th of lunar month of Caitra, the god of love (Kamadeva) was worshipped and to celebrate the festival, the husband had to bathe his wife himself⁷⁰. This reflects the honour that the women received in the early stages of the medieval history of Kashmir. Absolute devotion to their husbands were the qualities of an ideal wife. The husband had also to give proof of his devotion to her. The men passed some nights in the company of courtesans but they observed strictly the vow of celibacy⁷¹. Not only in the household affairs, the women of Kashmir were in no way inferior to men so far as the religious and spiritual life of the people was

concerned. The renowned Shaiva philosopher, Abhinavagupta had authoritatively stated that man must have a woman as messenger for communication with the all-powerful and that she must be treated as one's equal with honour⁷². At times, the woman was superior even to man. During King Yashaskara's reign (939-948), the housewives assumed the position of Gurus (teachers) at *Gurudiksa* (consecration of Gurus or teachers) and distinguished themselves by their actions, learning and eloquence. The *Gurudiksa* is a special Tantric rite by which the pupil or the aspirant is initiated as a Guru or teacher⁷³. The great philosophers and aspirants have attained spiritual attainments due to devoted practice in the Tantric doctrines⁷⁴. To preside over such an important function reflects the understanding power, sharp intellect and knowledge of religious literature on their part. The women of Kashmir were educated and were well learned. They could speak fluently both Sanskrit and Prakrit⁷⁵. They did not lag behind in other fields which included, dancing, singing, instrumental music, painting, needlework, woodwork, earthen wares or clay modelling, and besides were fully educated in sexual sciences and artistic works⁷⁶. Somadeva's *Katha-Sarit-Sagara* (the ocean of the streams of ocean) written in mid 1100 B.P. lays down that the women, especially princesses and queens, received considerable administrative, political and military training as a result of which they could show their worth in any capacity they were made to work whether as administrators, regents of minor kings, guardians of princes, members of cabinet, advisors and also as queens⁷⁷. Several queens of the monarchs during this period had earned reputation among the local and foreign masses by erecting religious establishments, convents and hospices which they usually named after

them. They could shoulder with ability any work of responsibility which otherwise required utmost power of understanding and efficiency. King Jayapida conferred the office of *Mahapratiharapida* (Chief Chamberlain) on his talented queen Kalyanadevi⁷⁸.

There are instances when the queens or the women in the royal family dominated the administration and controlled the machinery of the Government. They distinguished themselves in the social and political spheres of the state and in some cases the ruling monarchs or the nobles had to bow before their decisions. As queens or as regents they have proved their prudence and determination by bringing stability and normalcy in the state. In doing so they have shown that they could rule the land in a more competent way than their counterparts. At times they could take a leading role in favour of a successor of their choice. Queen Sugandha, the widow of King Shamkaravarman acted as a guardian of her minor son Gopalavarman (902-904 A.D.) and bestowed upon her minister, Prabhakaradeva, fortune and rank as in her widowhood she fell in love with him. This bold decision she took over and above his other colleagues in the cabinet and they did not raise any objection. On the other hand, she was requested to assume the royal power after the death of Gopalavarman. Again she wanted, also on the insistence of mother-in-law of Gopalavarman, to instal his posthumous son but he too unfortunately died soon after his birth. Her endeavours to place on the throne the grandson of Suravarman and son of Sukhavarman, the half brother of King Avantivarman (855/6-883 A.D) Nirjitavarman by name, failed. In this endeavour she lost her life also as the Tantrins rose in a rebellion but still installed on the throne the son of her nominee, Partha (906-921 A.D). It goes to the credit of Queen Sugandha's efficient handling of the state's

administration as guardian of her son and as a queen in the face of growing acts of treason by the para-military tribes. The mistress of King Partha, Sambavati, could control the band of Tantrins (the most powerful military caste), due to her skilful plotting. Hamsi, a Shvapaka singer became the chief queen of King Cakravarman during his third turn of reign (936-937 A.D.). Though hailing from an untouchable caste, the ministers took pride to dress themselves in her clothes which she gave away with menstrual stains. This also gave them an opportunity to get entry into the court. This shows the royal authority she exercised over the king or the ministers⁷⁹. Samgramadeva's grandmother headed the council of regency in 948-949 A.D. It was in the middle of 1000 B.P. that there came on the political scene of Kashmir another queen called Didda, the wife of King Kshemgupta (950-958 A.D.) and for nearly half a century, directed and controlled the administration of the state first as the queen, then as a guardian of her son and grandsons and finally as an independent ruler of the land.

Queen Didda was an exceptional woman. Her husband was addicted to wine, dice and women and was always surrounded by wicked sycophants. She, by dint of her wit and cleverness, could hold her sway over the king which is evident by the coins of Kshemgupta bearing the legend *Diddakshema*. This shows that he ruled jointly with Didda. This was the darkest period in the history of Kashmir. The kingdom was confronted with civil strifes, court intrigues, turbulent Damaras, unruly para-military forces of Tantrins and Ekangas. Not a day passed without the trouble which further increased with the ministerial rivalries. The crown turned into a 'priced object'. Whosoever paid the highest price, could become the ruler of the land. She could, under such

unpredictable circumstances, manage the affairs of the Government by making friends with some and at times befriending others and even did not hesitate in killing all the male claimants in her dynasty by A.D. 980, in order to have her control over the crown. With tact and diplomacy, she put down the repeated uprisings and rebellions, exterminated the powerful intriguers but in no case allowed the throne to pass into the hands of an unworthy claimant especially not connected with the royal family. Without any resistance from her ministers or without any drop of blood, she raised Samgramaraja, the son of her brother Udayaraja to the rank of Yuvaraja who after her death in A.D. 1003 became the king. This proves her diplomacy, wit, political sagacity and administrative capability which all along her domination, she showed in maintaining the strife-torn kingdom united.

The whole of the history of medieval Kashmir is full of the struggle of monarchy against the unruly and troublesome foot-soldiers who had at times served in the army. The powerful queens of Kashmir, Sugandha and Didda could hold them under their sway when they had full command of the armed forces. It appears that they were fully conversant with the art of soldiery and at times held the post of *Kampanesha* (supreme commander of the armed forces). After exterminating the treacherous ministers of the previous rulers, Queen Didda made Rakha, an ordinary soldier and a Brahman by caste, the chief commander of the army. Again when Tunga, her paramour and the prime minister, defeated king Prithvipala of Rajouri, he was given the command of the army also in addition to his own post. This indicates the high importance of this post which could be controlled by the queen herself. All this shows the martial spirit of the women of Kashmir during the period under study.

The women of Kashmir were fond of rich dresses, ornaments, jewellery. They took due care of their bodily grace by using camphor, sandal, saffron, scents, lac (for reddening the lips and the feet), collyrium for the eyes and flowers for decorating their coiffure and locks. The general use of unguents and flowers suggest the life of ease and luxury the women in Kashmir used to lead which is also confirmed from the sculptural representations of the standing monument in the valley. The growing taste for perfumes, or cosmetics, various types of jewellery, ornaments and other fashionable dresses was to project themselves in the society so as to catch the eyes of the king to become his spouse in which capacity they had open fields for rendering social service or any humanitarian work. There are instances where the women of a middle class rank could become the queen of the king for which they utilised their skill to the utmost. Singing, dancing and public acting gave them an opportunity to come to lime-light. Such girls or women with such profession were not looked down but were highly esteemed in society and recognised as skilled artisans. Such professional songstresses and dancing girls entertained the kings, princes, and other influential persons in private halls and other public places reserved for such purposes. The kings also took keen interest in teaching the girls of the harem in dancing and singing. It was acknowledged as a meritorious profession from very ancient times.

On one occasion, King Lalitaditya who besides a great king was an expert in horsemanship, went into a jungle for training one of his untrained horses. He came across two girls who were professional singers and dancers. They earned their livelihood by carrying on with that profession and under the spiritual instructions of their mother, they had been attached to a temple of the village where they lived. On further enquiry, the girls told the

king that they sang and danced as it was a custom held sacred by their family and that the custom had come down to them through generations. They further told Lalitaditya that neither of them nor any of their family members knows reality behind that. The king was amazed on their answer and ordered the excavation of the site. To his surprise, two temples were exposed with two images of Keshava (Vishnu)⁸⁰. Lalitaditya's father, Durlabhaka-Pratapaditya II was advised to take the graceful lady, Naredraprabha by name, the wife of a foreign merchant, Nona, as a danseuse from a temple on account of her knowledge of dancing. Attachment of such professionals with the temples shows that the system of *devadasi* (girl dedicated to dancing in a temple) existed in Kashmir as in many parts of India. The kings and nobles supported this custom⁸¹. The grandson of Lalitaditya, Jayapida married a professional dancer Kamala by name when he met her for the first time during his tour of adventure. The king conferred on her the office of the High Chamberlain and she laid the foundation of a township named after her as Kalayanapura, identified with the present village of Kalampor on Shupian-Srinagar road⁸². These temple-girls were taken as concubines in the royal harem and by a stroke of fortune became wealthy. Wealth inevitably brings vice in its train. In the midst of pomp and splendour of royal life, the institution of *devadasi* brought about moral degradation in the society. Prostitution and polygamy became popular.

A picture of moral delinquency prevailing in contemporary Kashmir has been detailed out by Damodargupta (776-806) in his *Kuttanimati Kavya* (advice of a bawd) and by Kshemendra (11th Century) in his *Samayamatrika* and *Deshopadesha* besides Kalhana in his *Rajatarangini*.

In *Kuttanimatta Kavya*, the author introduces a Kuttani (procurers) who shares her experience with a young harlot. It is in the form of advice in the art of pretended love by which to attract rich men and plunder their riches. The author draws various types of coquetry, sexual vices and tricks adopted by the corrupt women in the society. Writing in an elegant style, the author warns the reader to escape the wiles of such depraved women⁸³.

Kshemendra, the well known author of many works dealing in diversity of interests, describes in his *Samayamatrika* the story of an unchaste women, Kankali, who during her wanderings through the length and breadth of Kashmir, used many types of tricks to trap the rich men. In his another work *Deshopadesha*, he speaks of different sections of the corrupt people which include, *Durjana* (villian), *Kadarya* (miser), *Kuttani* (procurers), *Bandhaki* (prostitute), *Vita* (sensualist), student from Gauda, old man marrying the young woman and depraved Shaiva Guru. The villian or the cheat always speaks ill of others and quarrels with others for a dish of pottage. In and out he is crooked. According to the author, the miser is known for his crookedness, ingratitude, cruelty, evil action and for his own interests, he licks the feet of even a Candala. He is always fond of hoarding and pretends to be ill or keep fasting if a relative comes to his house. He avoids guests coming to his house lest he may have to entertain them for a meal. He stores paddy for a long time so that he could get a good price in times of draught and famine. Giving description of an old procurers, he says that by her sweet tongue and eloquence she can deceive any member of the society. A wise man is befooled, a rich man is rendered penniless and an honest man becomes a thief. She always proves dangerous for the man whose passion is aroused by her. The *Bandhaki*, the bawd or the prostitute is always after

rich men and by her flattery, she attracts them towards her and leaves them as paupers and destitute.

The *Vita* or a sensualist man is after brothels even if he is despised by the prostitutes. Always dressed in fine clothes with curly hairs, twisting moustaches and with his head faintly besmeared with collyrium, he is seen chewing betel-leaves. With constant use of betel-leaves, the teeth are reddened and he often exposes them by his dental speech. In doing so, he pretends to be rich, extravagant and luxurious. By spending too much for sexual pleasures, on bawds and procurers, he is heavily involved in debts. He is forsaken by his own people, assaulted by enemies and humiliated by the prostitutes around whom he roams so as to give vent to passion. In the valley, offering of betel-leaves to honoured guests was common. This practice indicated that the users were of good birth. King Jayapida, the grandson of Lalitaditya entered the city of Paundravardhana, the capital of a district of Bengal in a changed guise. His disguise was recognised by chewing of betel-leaves and he fell in love with a beautiful dancer, Kamla when she offered him betel-rolls⁸⁴.

The students who came from Gauda are described skeleton-like but with the life-giving climate of Kashmir, they became fleshy. They are easily provoked and are not true in their dealings. They falsely show their morality but make frequent visits to brothels. They do not feel shy of drinking the wine left over by the prostitutes and besides this vice they indulge in gambling.

In the seventh chapter of the book *Deshopadesha*, the author gives a ghastly picture of a young girl married to an old man worn out by infirmities but is rich. Quite reluctantly the girl is made to marry him but she is not inclined to share the bed with him. Forced by the relatives to enter into her husband's room, the bride is fondled by

the latter with liberal gifts. The old man in order to increase his vitality consumes nutritious diets which instead of doing any good, harms him. He falls prey to indigestion, disordered state of health as a consequence of which, he loses his vitality. Somehow, the wife conceives and a son is born. She enjoys and dances saying that a sprout has come out from withered and burnt tree. While the husband is at the last stage of his life, she approaches him for knowing the assets he had and where it was.

In the last chapter of the book, Kshemendra draws the distinctive characters of degraded Shaiva teacher who is not only ignorant but of loose morals, wicked man posing himself as an ascetic, trickly merchant, self-esteemed alchemist, ignorant grammarian or a scribe with stains of ink and a writer of contemptible verses. Though at times, the book carries exaggerated account of the depraved elements of the society, but there is no doubt in accepting the historical fact that in some of the sections of women, prostitution was popular in the society. Kalhana too in his memorable book *Rajatarangini* portrays numerous instances of depravation of moral character of the kings, princes and ladies of the palace and the court.

Ananglekha, the wife of King Durlabhavardhana, the founder of Karkota dynasty, shared her bed with the minister of the court by setting aside her shame, fear or regard. The shrewd Durlabhavardhana detected her ruin of moral conduct but had to eschew the bitter pill for the greed of kingship⁸⁵. The second son of great King Lalitaditya, King Varaditya-Bappayaka was so lustful that he had numerous women in the palace with whom he enjoyed himself in turn like a stallion with the mares.⁸⁶ Jayapida was driven by a dancer, Kamala by name, to the bed-chamber. Whenever a search was made for Jayapida by the king of the country in which he was on

a tour of his adventures, he was found at her residence. Finally Jayapida had to marry her⁸⁷. His son Lalitapida was a sensualist and the kingdom during his reign became the object of pleasure house of the courtesans. He always remained happy in the company of prostitutes⁸⁸. The liberal king and the founder of the Utpala dynasty, Avantivarman was born of a girl whose parents were spirit distillers⁸⁹. Sugandhaditya, the minister of Partha (906-921) pleased the two queens, Bappatdevi and Mrigavati of his father, Nirjitavarman, by sexual intercourse alternatively⁹⁰. King Cakravarman (936-937) was enamoured by the coquettish movements and sparking eyes of two Domba girls, Hamsi and Magalata by name when they gave musical performance in the interior hall of the assembly. The king was so blind with passion that he made Hamsi his chief queen⁹¹. Even a wise democratically selected Brahman King Yashaskara was duped by a beautiful courtesan, Lalla. She was raised over the heads of all of his beloved ladies of the harem. Even then, the beautiful-eyed Lalla so affectionately treated by the king, used to go out during nights with a Candala night-watchman⁹². The licentious Kshemagupta (950-958) was surrounded by knaves and parasites who placed before him their own wives with breasts and the interior of the loins easily visible. Blind by passion of these shameless women, his riches were plundered at dice. He was induced to have uninterrupted sexual intercourse with them after which the husbands would enquire from the king as to which one of them pleased him most and won his heart whereupon the king gave them riches according to their desire. In doing so the parasites or the sycophants abounded their self-respect and honour by themselves corrupting their wives and thus sacrificing the chastity of their families. By remaining in the service of the king for a longer time, they lost their family happiness and comfort. Kalhana

himself is at a loss to understand as to 'what these servile flatterers look for through such a disgraceful service'⁹³.

The love affair carried out by the strong-minded but extremely sensuous Queen Didda after the death of her husband, Kshemagupta knew no bounds. She had many paramours but she showed extraordinary passion for a grazier of buffaloes, Tunga, who had come over into the valley for a better livelihood from Poonch. He was employed as a letter-carrier in which capacity, she saw him by chance and got infatuated. The increasing passion of the queen day by day made Tunga arrogant and despite opposition from the high-ups in the government and the people in general, he became the prime minister and dominated over everybody⁹⁴.

These events reflect incredible sensuality of the kings and queens of Kashmir during a major part of the medieval history of Kashmir but at the same time provide an interesting information regarding the impressive administrative and political sagacity shown by the women in public life whenever opportunities were afforded to them. The courtesan, Sambavati, the sweetheart of Partha (931-935) controlled the warring group of Tantrin-foot soldiers and got him restored to the throne⁹⁵.

In the enjoyment of sexual pleasures there were no caste barriers. Any girl from any caste or the stratum of society could rise to high position. Courtesans who held high position and distinction in the society were selected by the kings or their sons or the nobles only on the basis of their charm and accomplishments. The women of mean birth such as Dombas, Candalas, spirit-distillers or other untouchables could aspire to become the lawful queens of the king and their progeny enjoyed the royal status of princes and princesses. In such prevailing social conditions of the women, there are numerous references

to the prevalence of polygamy which was not confined to kings only but to rich men also. The kings had a number of queens and concubines. This ghastly practice was followed by other rich and influential persons who mattered. However, there are brilliant instances of chaste, ideal and devoted queens who have always stood by the side of their husbands. Queen Sugandha had gone with her husband, Shamkaravarman in his expedition outside the valley. After conquering territories on the bank of Indus, he was fatally wounded on his return journey. The devoted wife Sugandha stood by his side at the time of his death, weeping and clinging to his body. The dying king entrusted his son, Gopalavarman to her who was in a state of minority and had no kinsfolk. His three other queens burnt themselves on the funeral pyre of the king⁹⁶. Queen Trailokyadevi followed her husband Yashaskara, into the funeral pyre⁹⁷ on her husband's death. Queen Dibba was ready to immolate herself along with other co-wives of the king but was prevented from dying by the tender-hearted minister, Naravahana⁹⁸. The burning of the widow with her dead husband or the deadly custom of *Sati* was as such in vogue during this period in the valley but it appears that it was not so widespread. The widow who avoided the self-immolation after the death of her husband was expected to live a life of strict celibacy, self-restraint and devoid of luxury. There were exceptions. In her widowhood, Queen Sugandha fell in love with the minister named Prabhakaradeva. Queen Didda after the death of her husband had many paramours and carried love-affairs openly with Tunga. Both these queens took active part in the political and administrative matters of the state after their husbands were no more. In general the queens, concubines and other courtesans built religious shrines, Mathas and Viharas to earn religious merit. Hui-Chao, who visited Kashmir sometime in 722 A.D. from Korea, writes

that right from the king, the royal consort, and the princes down to the chiefs and their wives built monasteries separately in accordance with respective capacities and abilities as each one had his own meritorious virtues⁹⁹.

A faithful and virtuous women was honoured in the society. On the other hand, a woman who was unchaste like Anangalekha would change her colour on seeing her husband. She would respond to angry husband by the curve of the brows, the eyes, the chin and whenever, her husband would speak, she would gaze on him with a smile. She had no joy if in union with him, she would pretend to be asleep on his bed¹⁰⁰. Such sensuous women drag self-controlled man to hell¹⁰¹. But still the husband was liberal enough to accept her as his legal wife. Divorce or harassment of unworthy women are scarcely met. The society believed in its logical way thinking that the woman was the object of sense like other objects and that the self-restrained should not feel angry about them¹⁰². Anangalekha became the queen of the King Durlabhavardhana and they and their progeny laid the foundation of Karkota dynasty which gave Kashmir a most brilliant and a worthy son Lalitaditya who raised her prestige not only here but outside also. Whatever the background, women in general enjoyed all the privileges in the society. They had some propriety rights and independent legal position. A widow was entitled to receive his deceased husband's immovable property as against his sons. Not only a legal wife, a prostitute became a mistress of a rich man and inherited as a wife his property after his death which she legally owned through the royal authority¹⁰³.

The picture of society under study reveals that there were diverse elements, both rich and poor, witty and innocents, luxurious and penniless, ease-loving and hard working, patriots and traitors, righteous and religious

persecutors and so on. But in all the spheres, the women of Kashmir have played their distinctive roles. A beautiful woman was supposed to be the gladdener of man's eyes and her love as his solace. The possessor of the sweet-heart was the enjoyer of a kingdom¹⁰⁴. There are instances where the official was executed for kidnapping of women. The incident took place after a decade and a half of the death of Queen Didda and its purpose was to prevent the kidnapping of women and safeguard the economic interests of the people¹⁰⁵. This suggests that punishments for such offences were severe which could have been possible only with the support of a strong government and administration.

Administrative Organisation

A close study of the medieval history of Kashmir makes it out that a strong and stable administration, weal and woe of the people and society depended entirely on the personality of the king. The king is compared to a charioteer, his body to the chariot, senses to the horses and his *atma* (soul) to the controller of the chariot¹⁰⁶. The king was the head of *rajya* (state or the kingdom) and was responsible for its protection and of the people. The *raja* (ruler) and the *rajya* (state) were interlinked. The prosperity and well-being of the subjects depended on the personality of the king who was supposed to be an essential unit of the integrated social structure.

One fundamental aspect observed in the selection of king was that emphasis was laid on the capability of the candidate and not on a legal claim of successor to the throne. Kingship was considered to be sacred by ideal and not by birth. In the selection of a king, ministers, queens, people and powerful para-military forces played an effective role. Meghavahana was chosen as the king of Kashmir by the ministers and the people together.

Matrigupta was installed as the king of Kashmir by the people and the officers of the state on the advice of king Harsa Vikramaditya of Ujjain. The period saw the emergence of a society where rank or caste-bound society was no consideration. The people appreciated the cool, polite and sharp intellect of Durlabhavardhana, *ashvaghasakayastha* (the master of cavalry) and the king, Baladitya, made him his son-in-law who afterwards succeeded his father-in-law on the throne. The coronation of the king was attended by all sections of the society so as to secure general acceptance of the people without any consideration of status, caste or colour. Queen Sugandha was in a position to rule the kingdom for the period of two years only relying on the Ekangas and the goodwill of the Tantrins, the powerful military organisations of the times. Subsequently she was deposed by Tantrins. These warring groups coupled with feudal lords resisted Kamalavardhana, Commander General of King Unmattavanti to occupy the throne and instead forced him to seek the consent of Brahmana assembly. The Brahmanas rejected him outright and selected a commoner, Yashaskara, to be the fit person to rule even if he was not linked with the royal family nor ever dreamt of being a king. There was a general agreement among the Brahmanas on the ability and worthiness of Yashaskara and they found that he was the only able man to be on the throne. Sometimes, the legal heirs were deposed or rejected as was the case with Suravarman II, a supposititious son of Unmattavanti (937-39 A.D.).

A righteous king had the responsibility to protect all the sections of the society. King Meghavahana after stopping the slaughter of living beings helped the butchers to earn their livelihood through other fair means. To assist the king in the discharge of his administration, industrious, self-disciplined, devoted and

wise ministers were appointed whose number was generally either five or ten. The number varied according to the requirements of the state. They were responsible for maintaining law and order, promoting peace and prosperity, protection of socio-religious institutions, activating the process of extending the limits of the kingdom, encourage learning and offer good advice to the king in times of need. A minister free from the vices of sensuality; gambling, drinking and immorality were honoured in the society. The king was advised to seek well-informed counsellors who would show him the right path. The faithless servants who normally enslave the king, penetrate into his secrets, as a result of which the 'Fortune' leaves him behind as his sense of discretion is lost and is not in a position to know the difference between man and man¹⁰⁷. This happened with King Unmattavanti whose minister, dearest of all, was Parvagupta who had at all times been striving for the throne. He became more powerful after Yashaskara's (939-48) death. He could instal his son Samgramadeva (948-49) who was still a child. To achieve his aim, he first put all of his rivals out of the way and at an appropriate time, forced his way into the palace and killed the child-King. Thus he usurped the throne of Kashmir soon after¹⁰⁸. It was with this background in view that members of the royal family who were trustworthy and of good character were preferred as ministers or as high-ranking officers in the state for fear lest they might usurp the throne or enter into with intrigues other disgruntled persons so as to bring about anarchy and instability in the country. On the other hand, the loyal and wise counsellors and men of high character brought about stability and prosperity to the kingdom.

Samdhimati, the minister of King Jayendra was a wise, pious and virtuous person and ascended the throne after the death of the king on the insistence of citizens and other

ministers. He ruled the country with exceptional piety but voluntarily abdicated when he sensed disaffection among the subjects¹⁰⁹.

The ministers looked after every sphere of the administration. The prosperity and happiness of the kingdom under Karkota rulers solely depended on the efficient handling of administration by the ministers. They gave sound advice to the king in times of calamity and at times even went into the battled-field along with him. Mitrasharman, Lalitaditya's Foreign Minister was equally good in war and in peace. He noticed lack of diplomatic politeness in the peace treaty executed between Lalitaditya and Yashovarman, King of Kanauj. He insisted for its redrafting in tune with the honour and prestige of his own king, the land and the people. For his loyalty and foresight, the king bestowed on him the title of *Pancamahashabda* (presiding officer or chief of the five departments of high Chamberlain, peace and war stables, and high sheriff with shahi or shahis and other ruling princes as the office-bearers)¹¹⁰. Filled with grief at the demise of King Kuvalapida, the eldest son and successor of Lalitaditya, his minister Mitrasharman accompanied by his wife, gave up his life at the confluence of Jhelum and Sindh, a place of great sanctity, Prayaga of Kashmir (modern village of Shadipur)¹¹¹. Lalitaditya's ministers were known for their discretion and wise judgement. Once in a fit of drunkenness, the king ordered the town of Pravarapura to be burnt down. Next day he repented for his rash action but was glad to find that his loyal ministers had not obeyed his orders¹¹². Mitrasharman's son, Devasharman accompanied King Jayapida on his expeditions. The king at the death of minister felt that he had lost the protective jewel and consequently the royal power¹¹³. His other ministers who had distinguished themselves by the service and works were Damodaragupta, Vamana and others.

King Avantivarman had two intelligent ministers, Sura and Suyya, who were responsible for bringing about the prosperity of the kingdom and the happiness of the people. The former revived learning and honoured learned men with membership of Sabha to which they went in vehicles worthy of kings. He reminded other ministers of the state of their resolve to do good deeds for welfare of the subjects. The wise minister was a worshipper of Shiva and the king, subservient to his will, bore himself as a worshipper of Shiva though from child-hood he was in reality a worshipper of Vishnu¹¹⁴. Suyya is still remembered for his skilful engineering operations for the drainage of the valley and irrigation which ultimately saved the kingdom from disastrous floods and its area was extended for cultivation. The country with these measures received excellent produce¹¹⁵. During the reign of Abhimanyu (958-72 A.D.), the Prime Minister, Phalguna outshone others by his enlightened judgement, statesmanship, courage, energy and other good qualities¹¹⁶. Naravahana, the faithful minister of Queen Didda made her the sovereign of the entire kingdom in token of which she conferred on him the highest title of 'Rajanka'¹¹⁷. The Prime Minister of the queen, Tunga, a low-born herdsman of buffaloes from the hills of Poonch, rose to that elevated position by dint of his valour and prudence. In a successful expedition against Rajouri, he made the ruler of that territory, Prithvipala pay tributes to his master for which she made him the commander of the forces¹¹⁸.

The team of ministers headed by the Prime Minister were thus directly responsible for the maintenance of the integrity and welfare of the people of the kingdom of Kashmir, often referred to in literary sources as a *Mandala*¹¹⁹—Composite units of Settlements. The kingdom or the *mandala* had many smaller administrative units like *Pradesha* or *rastra* (flourishing centres for commerce,

agriculture and religious institutions), *visya* (district), *desha* (territorial division), *patta-na* (town), *nagara* (city), *vastayyadesha* (arable land), *bhukti* or *grama* (village) and so on. The *mandala* (kingdom) of Kashmir was divided into two parts Kamraj (Skt. Kramarajya) and Maraj (Skt. Madavarajya)¹²⁰. The latter comprised the belt on both sides of Jhelum above Srinagar (the present day Wazarat of Anantnag) and Kamraz comprises the areas below (modern Baramulla Wazarat)¹²¹. The line of demarcation of these two divisions stood near the present Shergarhi palace (left bank of river Jhelum) in Srinagar.

The kingdom as a whole was sub-divided into small administrative units. The Kashmir valley was divided into 27 *visayas*. These were named in Mughal times *parganas*. Abul-Fazl mentions the number of these at 28¹²³, again Quzi Ali, Akbar's revenue expert mentions these to be 41¹²⁴ whereas Major Bates puts their number at 43¹²⁵. However, it appears that the list could be increased or readjusted according to revenue, administrative or other requirements. The size of *visya* or *pargana* could vary according to size, population and revenue assessments. Each *visya*, according to Kshemendra, comprised one thousand temples and seventy five villages and the number of villages in the two parts of Kashmir *mandala* (kingdom) were 66083¹²⁶.

There were a host of officials who managed the affairs of the government. The king, as the head of feudatories, was regarded as a paramount lord who was separated by feudatories and their subordinates from the common man. The feudalisation of administration resulted in the disintegration of the central power. The tradition of granting *agrarahas* amounted to fragmentation of the state. With increase in the number of land-owners, a process of subfeudation was started. The cultivators paid land-tax not to

the king but to feudal chiefs, priests, temples, monasteries and other intermediaries. In certain cases the donees turned their attention to the management of the lands. Obviously such attempts led to the forces of disintegration, decentralisation and economic instability. This could very well be the reason for Lalitaditya Muktapida, the greatest king of Karkota dynasty, to send a directive to his ministers for carrying on the administration without hinderance and blame. The message read: "Those who wish to have mastery in this land, must at all times guard themselves against internal dissensions, because of foreign enemies, they are as little in fear as the Carvakas (non-believers in God, soul, immortality or the next world—*parloka*) of the world beyond. Those who dwell in the mountain caves, should be punished, even if they give no offence, because sheltered by their impregnable fortresses, they are difficult to be seized once they have accumulated wealth. Every care should be taken that the villagers should not be left with more food supply than that for one year's consumption, nor more oxen than wanted for the tillage of their fields, because if they should keep more wealth, they would become formidable Damaras (feudal barons or lords or well-to-do landed gentry) in a single year and strong enough to neglect the commands of the king. When once the rural population obtains clothes, women, woollen blankets, food, ornaments, horses, dwellings, such as are fit for the town, when the fortresses supposed to be defended are neglected by the kings in madness; when their servants show lack of judgement; when maintenance of the army is exacted from a single district; when the kings look into the offices as if they are clerks (Kayasthas-high officials of the bureaucratic hierarchy, known as oppressors of the society), then it may be known that a change for the worst in the subject's fortune is certain"¹²⁷. The post-Karkota period shows that

Lalitaditya's assessment was correct and the kingdom had to suffer from the distress against which he warned the ministers¹²⁸. By the passage of time, the most virtues of bureaucracy tend to become vices which if not restrained result in pathogenic society. With increasing bureaucratisation coupled with lack of communication and transport to inaccessible areas cut off by ravines and mountain gorges, the district officers and in some cases their subordinates turned all powerful persons who raised their own army and maintained it out of the revenue, they were to collect and deposit into the state treasury. In the wake of such faudal tendencies, the central government weakened resulting in socio-economic and political instability.

The smallest administrative unit was the village under the administrative control of headman called *gramika* or *gramani*. Its prototype was *Skandaka* and for his monthly pay and also for village clerks (*gramakayasthas*), certain taxes were levied which drove the villagers into poverty¹²⁹. This shows the importance of the officer and it is evident that he was paid by the centre and his appointment rested with the king. He could retain his office only when he was successful in extracting the maximum from the villages. A separate department of Home (*grhakritya*) was organised by the King Shamkaravarman (883-902) after he amassed revenue by adding or deducting to the due weights, by collecting revenue from temples in the villages, or by sale of incense, sandal wood and other articles of worship under the pretext of a share in the sale price. The height of the bureaucratic pressure was the introduction of *kar-beqar* (forced labour). To maintain the office of *Grhakritya*, the king in his foolish actions appointed Kayasthas to occupy key positions and by abstracting the property or wealth of the honest men, they destroyed his reputation¹³⁰.

Grhakrityamahatama or *Griakrityadhipati* (Chief Executive Officer of the internal administration) was the head of this department assisted by five secretaries and a treasurer¹³¹. Kshemendra informs that the officer controlled the offices of both the civil and the military departments and also the department of Dharmarth (religious institution) for which he was assisted by seven officers and eight orderlies¹³². The other officers for running the manifold activities of the villages were:-

Paripalika (village-tax collector) in extracting revenue from the villages, he would resort to any despicable method like killing of Brahmanas, cow slaughter and such other atrocious offences. He frightened villagers but treated with kindness the courtesans or the keepers of brothels. In his dealings, he was merciless and voracious. He was escorted in the villages by *Lekhakopadhyaya* (Revenue accountant or Head Clerk), *Ganja-divare* (Superintendent of finances) and *Niyogin* (Supervisor of the villages and the Parganas)¹³³.

Along with that of *Grhakritya*, *Aksapatala* (Accountant General's office) was also an important organisation. Both the heads of these offices were appointed by the king. Shambhuvardhana (935-936), the holder of *Grhakritya* office became, though for a short period, the king of the land¹³⁴.

Each administrative unit was under the charge of *mandalesha* (provincial Governor). The revenue collected from the province supported his dignity and the troops under his charge.

Margapati was the chief administrative officer of the *visya* or a *desha* both being one and the same territorial division. In a stone inscription lying at the mouth of a spring locally known as *Bhuvanesha* or *Bhuvaneshvari* in the village of *Khonamuh* (ancient *Khonamusa*), the officer of *desha* is recorded as *deshadhipat*¹³⁵. another name for

Margapati, Margapati carried magisterial powers with him so that he could take his own independent decisions in civil and criminal cases¹³⁶.

The other two important functionaries of the *Mandala* were *Kampanesha* or *Kampanadhipati* or *Kamanadhipa* (commander-in-chief of the armed forces) and *dvaradhipa* or *dvarapati* (lord of the gate). In the numerous expeditions, sieges, fights and in the suppression of rebellions against the authority of the king, *Kampanadhipati*, figured as the head of the army consisting of elephants, cavalry, chariots and infantry.

Elephants were considered as one of the important unit of the army. Mihirkula, Lalitaditya, Jayapida and Shamkaravarman maintained a huge elephant corps¹³⁷. Lalitaditya's *digvijaya* was a success due to the use of elephants and cavalry both¹³⁸. Elephants are described as the guardian deities of different quarters¹³⁹. Interestingly it indicates that the climate of the valley could suit the maintenance of the elephants.

Cavalry was the chief limb of the army and its swiftness was considered as the most important factor towards the mobility of an army¹⁴⁰. Lalitaditya was proficient in the knowledge of horses¹⁴¹. Shamkaravarman's army had one lakh of horsemen¹⁴². The sequence of events during this period shows that cavalry occupied a foremost place in the martial strength of the land. The lord of the horses had ten thousand horses and one thousand men under his command¹⁴³. Equally important was the official in-charge of the fodder for horses. Durlabhavardhana in that capacity was destined to become the ruler of Karkota dynasty¹⁴⁴.

Chariots (*Karnirathas*) were used in warfare. Their number at the time of Lalitaditya's *digvijaya* was about a lakh and a quarter and eighty thousands at the time of Jayapida. Shamkaravarman when injured during his

expedition left for his country in a chariot. This as such formed one of the components of the army at that time¹⁴⁵.

Infantry or the foot-soldier accounted for a major part of the army. The mobility of the foot-soldiers contributed to the defence of the kingdom¹⁴⁶. The infantry included all classes of people like Tantrins, Ekangas, and the armed villagers including the Candalas, peasants or cultivators and even Brahmins¹⁴⁷. This was certainly a striking feature of infantry prevalent in Kashmir at that period of history. When Queen Didda annihilated the arrogant and treacherous ministers of the previous rulers, she appointed Rakha of the army, as one of the confident minister in the court. He was a Brahman but at the same time it indicates the importance of the post¹⁴⁸.

Dvarapati (Lord of the Gate) also held an important position in the council of the king and in the administration of the kingdom. He had 60,000 men under his command which included a sizeable contingent of troops to safeguard the strategic points for entry into the valley and also maintain stability within¹⁴⁹. In the valley, *drangas* (watch-stations) were established near mountain passes for the double purpose of guarding the approaches and for collecting custom revenue like the one at Surapura (modern Hirpur near Shopian)¹⁵⁰. An able and proficient lord of the gate well-versed in the military training and in the defence of these watch-stations could aspire for elevation to high offices in the state¹⁵¹. A confident person and the nearest relative on whom the king could depend got this post¹⁵².

Nagaradhipati (city-prefect) was also the highest officer of the state. He recommended the transfers of officers and was very influential. He built religious shrines and encouraged queens to pious actions and made them to love subjects¹⁵³. He levied fines on married women of the immoral conduct, apprehended thieves

and listened to the cases of land-encroachments¹⁵⁴. He was also connected with revenue collection which is marked by the appointment of four city-prefects by King Yashaskara in order to amass wealth¹⁵⁵.

On the head of the bureaucratic machinery of the state was the council of ministers headed by *Sarvadhikarin* (Prime Minister). A man of character with ability to govern the state held this office without taking into account his caste, status or profession. A man of courage, energy, efficient in warfare and loyal to the ruler of the land could also become the prime minister of the country. This happened with Tunga, a mere herdsman of buffaloes to become the prime minister of the kingdom when a dynamic ruler like Didda governed the state¹⁵⁶.

Another influential and powerful minister projected in this period was *Samdhivigrahika* (minister of foreign affairs). The minister so appointed had the knowledge of foreign countries, their languages and power of understanding needed in times of peace and war. Mitrasharman, the *samdhivigrahika* of King Lalitaditya knew the diplomatic niceties when he rejected the treaty drawn-up by the king with Yashovarman, king of Kanuj. This diplomatic action of the minister broke the power of Yashovarman and raised the prestige of Lalitaditya both at the home and foreign fronts. For this loyalty, the minister was conferred the distinction of holding the five offices under his command which gained precedence from that time onwards. These five offices created by King Lalitaditya in order to meet the requirements of his vast empire were over the eighteen offices established earlier on the pattern mentioned in the *Mahabharata*, the *Ramayana* and also alluded to in the *Panchtantra*¹⁵⁷. The new offices now created, combined and put under the charge of the foreign minister were:-

1. *Mahapratiharapida* (the office of the high Chamberlain).

2. *Mahasamdivigapha* (Chief Minister of foreign affairs).
3. *Mahashvashala* (Chief master of the stables).
4. *Mahabhandagara* (Chief master of the treasury).
5. *Mahasadhanabhaga* (Chief revenue officer).

The Shahi princes or other ruling princes were the officers in these departments. The foreign ministers incharge of these offices were from this time onwards honoured with the high title of *Panchamahashabda*¹⁵⁸. In our period under study, officers of the state were honoured with another title of *Rajanka* for their distinguished service¹⁵⁹.

The *Dharmadhikarin* or the *Dharmadhikaranin* was the highest judicial officer of the state. He being the chief justice of the kingdom was an important functionary of the state administration. His office and the office of *Calaganja* (mobile treasury) was instituted by king Jayapida of Karkota dynasty¹⁶⁰. The former was to decide the civil and criminal cases while the latter was to serve as a treasury during foreign expeditions when the central treasury used to be away in the capital.

The administrative units or the number of officers varied at different stages depending upon the nature, expansion of territorial limits, rising disturbances in and outside the valley, growth in population and exaction of taxation from several sources. Even if the kings or the feudatories exercised full powers and enjoyed all the privileges according to their status and rank, yet there were some forces which in their narrow sphere of activity could exercise their sway over the king or his bureaucratic agents. The kings could not claim the throne simply on the basis of the law of primogeniture. The ministers, para-military forces, queens, *Purohitas* or Brahmins or their corporations took a prominent part in the selection of kings or in the removal of officials who

did not work in the interests of the people and the country. The most effective instrument to curb the oppression of kings or his band of councillors was a hunger-strike (*Praya* or *Prayopavesha*) started by the assembly of Brahmans. Their decisions were honoured by rulers of the times and as such their opinion was held supreme in the social and political circles. *Praya* or *Prayopavesha* (hunger-strike) was a moral right of the individuals recognized by the state which appointed officers to watch the cases of voluntary starvation and accordingly report to the king. The dismissed ministers of Queen Didda had to enter upon a hunger-strike so as give vent to their resentment against her favours shown to the prime minister, Tunga¹⁶¹. Voluntary starvation in extreme cases led to suicide which was the last refuge of the oppressed against the tyranny of an absolute king and his government¹⁶². This non-violent method was to change the heart of the oppressor and thus draw the attention to a glaring evil or act of gross injustice¹⁶³.

Another popular body to limit the autocracy of the king could have been the *Sabha* through which the will of the people could have been transmitted. Its chief was called *Sabhapati* who was a respected member of the society and was recipient of huge sum daily¹⁶⁴. Sura, the judicious minister of Avantivarman honoured learned men with the membership of the *Sabha* to which they went in vehicles worthy of kings¹⁶⁵. This shows beyond doubt that there existed a representative body called *Sabha* which was an honoured institution for social intercourse and discussion of matters of public welfare.

The administrative system seems to have been more elaborately organised by Karkota and Utpala rulers. This is evident by the establishment of five offices by King Lalitaditya who put them under the charge of his efficient minister for speedy and timely solution of the problems of the subjects¹⁶⁶. So also King Shamkaravarman of Utpala

dynasty appointed five clerks (*diviras*) to the Home-Department (*grhakritya*) and the sixth as treasurer (*ganjavara*) to maintain accounts¹⁶⁷. The delegation of administrative powers to a board of five members could have been the Government body with a higher status referred to by Kshemendra as *Kula* (group) or *Panchakula* (group of five members)¹⁶⁸ and *Panchayat* (board of members) by Sircar¹⁶⁹. In this case, the formation of *Panchayat* bodies owes its origin to the medieval history of Kashmir.

Apart from these corporations, the autocratic rule of kings always remained threatened at least from 8th century onwards due to growing threats of Damaras and other warring groups which forced them to gain the goodwill of the subjects, especially the powerful class of Brahmans and Priests. Still the most powerful and effective method to restrain the king or his officers from taking oppressive actions against the peace-loving people was the socially recognized principles of *dharma*. The story of Charmakala (leather tanner) and King Candrapida is a clear proof that the latter did not want to tarnish the religious work of construction of his temple by forcibly taking away the former's land. In the dialogue between the king and the leather-worker, the latter impresses upon the king the sanctity of upholding cause of justice and *dharma*, befitting a righteous king. The king accordingly took action which pleased the leather-tanner¹⁷⁰. All the evidences tend to suggest that on the whole the administration of ancient Kashmir was very-well developed and effective in spite of odds and hurdles created by the corrupt or richer sections of the society whether in Government or outside it.

Religion

During the period under report, the Brahmanical religion was renewed. With the introduction of Sanskrit language

and adoption of image worship as a result of Mahayanism, Buddhism came nearer to Brahmanical theism. The immigration of Brahmanas from Gandhara, grant of *Agraharas* to them, patronage shown to Hindu divinities by Mihirkula and his successors brought about a strong religious movement in the form of worship of Brahmanical gods and goddesses. The people in the valley and even the rulers of the times imbibed the essential teachings of Buddha. Its fundamental doctrine of *ahimsa* or non-violence (abstention from the slaughter of animals) made a profound impression on the rulers like Meghavahana, Matrigupta and others who forbade the killing of animals in the kingdom. Buddha was revered as one of the ten incarnations of Vishnu. On his birthday on the full moon of Vaisaka (month of Baisakh), he was worshipped like a Brahmanical god. On this particular day his terracotta images were prepared and worshipped according to the rites prescribed in Buddhist texts¹⁷¹. In spite of outstanding Buddhist influence in the region, the worship of Shiva and Vishnu occupied a prominent place in the religious devotion of the people. Both these deities established their supremacy over other gods. In the valley where Keshava (Vishnu) and Ishana (Shiva) adorned, there was not a space as large as a grain of Sesamum Seed¹⁷². In addition to these popular gods, Shakti (Devi) in her manifold aspects, Karttikeya, Sun god, Kamadeva (love-god), Bhairvas, Ganesha etc. were also worshipped. The anthropomorphic conception of the deities produce a rich sculptural wealth and accordingly necessitated the erection of structural shrines.

The religious literature is duly authenticated by archaeological, numismatic, inscriptional, sculptural and monumental evidences. *Shaivism*, the worship of Shiva in particular was popular in Kashmir from early times. It originated from Indus valley people who came over into

the valley between 3500-3700 B.P. as is revealed in the excavation at Burzahom and Gufkral. Initially the people worshipped the mountain peaks or such monolithic stones with peculiar or uncanny features. The ancient holiest mountain peak is Haramukta, Shiva's diadem, heavily glaciated mountain towards the north of Kashmir in Sindh valley. It is supposed to be the favourite residence of Shiva and as such has played a prominent part in the ancient religion of Kashmir. Shiva was worshipped as *Bhutesha* (the lord of the beings) on the mountain spur which stretches south-east from the Haramukh mountain peak two miles above Wangath hamlet situated about 43 kilometres from Srinagar. In close proximity to this holy place is an ancient spring of Naran Nag. The Shiva Bhutesha was pleased on the austerities of King Ashoka and blessed him with a son named Jaluka. Jaluka exterminated the Mlecchas (probably Greeks) who had overrun the country¹⁷³. The Kashmiri kings at different periods had raised buildings here in honour of Shiva Bhutesha and of the neighbouring Linga of Shiva Jyesthesha. The stuccoed enclosure of Shiva temple known by the name of *Vijayeshvara* at Bijibehara was replaced by stones and further two temples of Shiva were built by Emperor Ashoka called *Ashokeshvara*. Even his son, Jaluka, also a devotee of Shiva had vowed that he would ever worship Shiva *Vijayeshvara* at Bijibehara and Shiva *Jyesthesha* in the vicinity of Bhutesha known as *Nandishakshetra*, the sacred territory in the name of Nandisha or Nandin, the faithful attendant of Shiva¹⁷⁴. The entire belt stretched from the holy lake of Uttaranganga or Gangabal at the foot of the north-eastern glacier of Haramukh mountain down to Bhuteshvara¹⁷⁵. The persecutor of Buddhists, Mihirakula was a devotee of Shiva and is said to have founded a temple of Shiva in Srinagar¹⁷⁶. This is borne

out by his coins which are the earliest specimens of Kashmir coinage. On a silver piece (coin) is the king's head with the *trisula* (trident) of Shiva and the legend runs as *Jayatu Vrisha-Dhwaja* (May the *Dhwaja* i.e. banner or flag of Bull be victorious). A similar typed small copper coin carried king's head on the obverse with the Indian legend as 'Sri Mitira-Kula' but on the reverse is again shown a humped bull with the Indian legend as *Jayatu Vrisha* (May the Bull be victorious)¹⁷⁷. This, therefore, displays a concrete evidence that Shaivism was popular in the valley in those days and thereafter.

Another known and pious king of the period, Aryaraja Samdhimati was distinguished by his devotion to Shiva. When he became the king, he made to carve *Sahasra lingas* (one thousand lingas) all around the rock still existing in village Siligam in the Liddar valley. Besides, he built two shrines of Shiva one under his own name as Samdhishvara and other in the name of his guru Ishana as Ishaneshvara¹⁷⁸. The founder of modern city of Srinagar, Pravarsena II was a devoted worshipper of Shiva and wished to consecrate the Linga of Shiva-Pravereshvara at his temple of Pravaresha (now the cemetery of Baha-ud-Din Sahib) in the heart of his capital Srinagar between the southern foot of the Hariparbat and Jama Masjid¹⁷⁹.

Shaivism continued to receive royal patronage under Karkotas. Lalitaditya, the great ruler presented a huge sum of money to the shrine of Shiva Bhutesha and also constructed a lofty temple of Jyeshthesha in close proximity to it. He donated land and villages to it¹⁸⁰. Narendraprabha, his mother built the temple of Shiva named after her¹⁸¹. So also his minister Mitrasharman, his learned teacher Bhappata and many other courtiers installed Shiva Lingas which they named after them¹⁸². Aca, the chamberlain of King Jayapida, grandson of Lalitaditya, built a shrine of Shiva Aceshvara¹⁸³.

The worship of Shiva continued with all the more enthusiasm during the reign of Utpalas. The founder of this dynasty, Avantivarman built a Shiva temple at his town, Avantipura and also fitted three pedestals with conduits made of silver at important Shiva shrines of Tripureshvara (named after the killing of demon Tripura by Shiva, the shrine being above the village of Ishbar overlooking the Dal lake), Bhutesha (temple complexes of Naran Nag) and Vijayesha (Bijibehara). He frequently used to visit the shrine of Bhutesha for offering worship¹⁸⁴. At the sacred place of Sureshvari (near the village of Ishabar above Nishat garden), his wise minister, Sura built a temple in honour of Shiva and his consort Parvati¹⁸⁵. The son of the minister Ratnavardhana, in the vicinity of ancient shrine of Sureshvari, built an another temple of Shiva Bhuteshvara¹⁸⁶. The king's son and successor, Shamkarvarman and his queen Sugandhesa built Shiva shrines at their newly founded town of Shamkarapura (modern Pattan)¹⁸⁷. Near-by, their minister Ratnavardhana built the glorious shrine of Sadashiva called Ratnavardhensha¹⁸⁸ (the remains of which stand now identified in the nearby area).

King Cakravarman (936-937) founded a *matha* (convent) named after him as Cakramatha to serve as a lodge for Pashupatas¹⁸⁹, an earlier sect of Shaivas in the valley. They identified God with Shiva himself whom they believed to be the creator and ruler of the world but not its material cause¹⁹⁰. He was called by the name of Lakulisha Shiva incarnate, also called by the name of Lakulin (the holder of a Lakuta or Laguda or Lakula i.e. a club). He was regarded as the founder teacher of this Shaiva sect or system. In the temples built during the period under study, his image was installed on the entrance niches of Shiva temples as we observe in the temples at Pandrethan, Manasbal lake (Dist. Srinagar), Payar (Dist. Pulwama) etc. Pashupatas are bracketed

with Kalamukhas or Kapalikas or the Bhairavas who ate food placed in a human skull, besmeared their bodies with the ashes of human carcasses, drank wine and were always embraced by Kapalins¹⁹¹. Some Kashmiri families still maintain such wild aberrations on Mahashivaratri celebration, a function of bliss and peace.

In the beginning of 9th century, Kashmir Shaivism took a new garb on the lines of Advaita system. It became wonderful synthesis of all the important systems of knowledge whether it was of the Vedanta, the Sankhya, the Dhamma and Vinaya of the Buddha, the Vaishnava or Shakta schools. It was a realistic approach to solve the intricate problems of the degenerated society of the times. Its discovery is regarded as the best and the highest spiritual philosophy in the world. It was more humane and rational in character. Designated as Trika Shastra or 'the Threefold science' or briefly 'Trika', 'The Triple'. It was classified into three sub-divisions namely (i) *Agama Shastra*, the knowledge that has come down from remote antiquity or revelation by Shiva himself, (ii) *Spanda Shastra*, the knowledge of 'Speed' or 'Vibratory' movement, and (iii) *The Pratyabhijna Shastra*, the knowledge of 'Recognition' of Shiva. In the later part of 10th century a prolific writer, Abhinavagupta, turned into Shaivism a dominant force in the valley and outside. He wrote more than 40 books among which *Tantraloka* with the commentary written on it in detail by Jayaratha in 12 volumes is claimed to be an encyclopaedia of the Trika¹⁹². Jayaratha, a literary figure on philosophical and poetical compositions is believed to have flourished in the beginning of 13th Century¹⁹³. Due to their continued scholarly and philosophical compositions, the worship of Shiva took deep roots in the valley.

Shiva, whether in his phallic or in his human form, continued to be worshipped with traditional fervour. King

Parvagupta (949-50) built a shrine of Shiva. Parvagupteshvara near the modern locality of Khandabhawan (between sixth bridge and Idgah) in Srinagar. His son Kshemagupta in the middle of 1000 B.P. also erected a temple of Shiva, named after him as Kshemagaurishvara at the confluence of river Jhelum and Dudhaganga) below 7th bridge in Srinagar proper¹⁹⁴. On cultural front, the valley witnessed a glorious period till the end of Queen Didda's rule.

Vaishnavism—The worship of Vishnu was also popular in ancient Kashmir. Initially, mountains, lakes and such other holy places were associated with the worship of Vishnu. One of the snowy peak to the west of Banihal was considered to be of Vishnu. Koursanag (ancient *Kramasaras*) in the Pir Panjal range at an altitude of 1200 is called Vishnupad (a footstep of Vishnu). It is still a place of pilgrimage. There are many such lakes which are connected with the Vaishnavite worship in the valley¹⁹⁵.

In medieval Kashmir, Vaishnavism reflected the synthesis of various Vaishnava cults as recognised in the Vedas, Pancaratra or Bhagavata system or Vishnudharmottara Purana. In Pravarasena's reign (c. 540 A.D.), an image of Vishnu was installed though it was initially meant for the Linga of Shiva Pravareshvara¹⁹⁶. In a more or less similar situation King Ranaditya (c. 580 A.D.) on the persuasion of his queen Ranarambha built the temple of Vishnu in her name as Ranasvamin¹⁹⁷. This is also mentioned by Jayanta Bhatta (9th Century A.D.) in his *Agamadmbara*¹⁹⁸. Earlier, his elder brother, Narendraditya is credited with the erection of Vishnu temple named after him as Narendra-svamin¹⁹⁹. In majority of the cases, the religious edifices were identified with the name of the builder followed by the deity to whom the building was dedicated. In case of

Shiva-temples *isha* or *ishavara* was invariably added and in case of Vishnu-temples *svamin* (Keshava) was added²⁰⁰.

From Karkota period onwards (beginning with 625 A.D.)²⁰¹ Vishnu began to rise in importance. He rose to the rank of supreme spirit and was the adored deity of Karkotas. Their founder Durlabhasvamin, his sons Malhana and Durlabaka-Pratapaditya, grandson Candrapida along with his preceptor and city prefect patronised the erection of Vishnu temples²⁰².

The illustrious King Lalitaditya was a great devotee of Lord Vishnu but in no way lacked behind in giving due regards to the religious sentiments of other faiths. There was not a township, no village, no river, no sea, no island, which was not adorned by him by sacred foundations²⁰³. Sacred shrines in the name of Vishnu were erected by him at Darpitapura, Huskapura (modern Ushkar), Lokapunya (modern Lokabhavana), Parihasapura etc. In all these shrines he made offerings to his favourite god Vishnu. Golden images of the Lord were made in the name of Vishnu Muktakeshvara at Hushkapura and of Vishnu Mahavaraha, the boar incarnation of Vishnu at Baramulla. The silver images of the god, Vishnu Parihaskeshvara and of Govardhanadhara were put in respective shrines erected by him in and around his capital city of Parihasapura. Here also on a colossal stone pillar, he placed on its crest the emblem of Garuda (Vishnu's *Vahana*). By the side of Shiva shrine at Parihasapura, he consecrated the Vishnu image of Ramasvamin in a newly constructed stone shrine. His queen Kamalavati put up a large sized silver image of Kamalakeshava. The king of Late (an ancient name of central and southern territories of Gujarat), Kayya by name and probably a feudatory of King Lalitaditya founded the holy shrine of Kayyasvamin.

The King's another queen, Cakramardika, put up the image of the god Vishnu under the name of Lakshmanasvamin²⁰⁴. In his famous temple of Martanda dedicated to Sun god, three-faced Vishnu Images were carved in the niches on the western walls of the antechamber²⁰⁵. All these evidences show that King Lalitaditya had professed the worship of Vishnu throughout his realm and donated liberal grants for the shrines and the images installed in these. This gave an inspiration to his successors who continued his religious zeal for few centuries more. Jayapida, his grandson installed a quadruple form (four faced) of Vishnu in the temple at Safapor, a picturesque site overlooking Manasbal lake. The quadruple form of Vishnu refers to the Vyuhās which form a peculiarity of the Pancaratra school. This tradition in the valley reached to its climax during the Utpala dynasty. In particular, this form of Vishnu put up by Jayapida was reclined on the serpent *Shesha*²⁰⁶ identified with Vasudeva-Narayana of Bhagavata system. Jayapida's mother Amritaprabha built the shrine of Vishnu which she named after her. During the reign of his son Ajitpida, his five material brothers, who were his ministers also built temples of Vishnu in their newly founded towns with the aid of unchecked booty they could obtain in the country²⁰⁷.

The rulers and their close associates in the harem and in the administration during the reign of Utpala dynasty patronized Vaishnavite worship. Its founder Avantivarman built a magnificent temple named after him as Avantisvamin in the town founded by him which is still known by his name as Avantipura, on Srinagar-Anantnag highway at a distance of 28 kms from Srinagar. Unlike Martanda temple of Lalitaditya, it is provided with much refined and ornated carvings and figural sculptures. In the excavations conducted in 1913,

among other Brahmanical images, a good number of the images were found. These represented Vishnu in his four-headed (Chaturvyuha), four armed and standing postures. These images enshrined the cells of the peristyle and subsidiary shrines. Several smaller images of this type were found around the main shrine during excavations and the excavator was of the opinion that the principal image in the sanctum of the temple was of this style. Many such images were found which makes it out that the worship of this type of Vishnu images gained momentum during this period. These have not been found in the Avantipura only but from other sites as well. These type of images grew in number and variety and Kashmir became the centre of the Vyuha (emanation cult which points to the popularity of the Pancaratra doctrine there. This type of image which in itself assumed the form of four Vyuhās (emanations) gave birth to various incarnations of Vishnu. These images also called Vaikuntha, Chaturvyuha, Chaturanan or Chaturmurti are fairly common. Some of these are finely carved and polished and reflect wide range of stylistic conventions²⁰⁸.

Avantivarman's brothers Shuravarman and Samara the chief door-keeper of minister Sura, Madodaya, the minister of the king, Prabhakaravarman built shrines dedicated to Vishnu and mostly named after their own names²⁰⁹. His another talented minister Suyya laid the foundation of the temple of Vishnu Yogashayin (merged in mental abstraction) at the confluence of Jhelum and Sindhu rivers, the present day locality of Shadipura. A little below the confluence spot of these rivers and close to Naranbagh on the right bank of Jhelum, the remains of ancient temple existed which could have been Suyya's Yogashayin shrine.²¹⁰

After Avantivarman and in the beginning of 1000 B.P., Queen Sugandha (904-906) her daughter-in-law, Nanda,

King Partha (906-921) and his minister Meruvardhana built Vishnu temples²¹¹.

The popularity of Vaishnavism continued without any hinderance in post-Utpala period also. The democratically elected Brahmana King Yashaskara (939-948) started the construction of Vishnu temple but could not complete it due to his death. On the insistence of his widowed queen, Parvagupta (949-950) completed it²¹².

In the middle of 1000 B.P. and in Queen Didda's era, the speed in the erection of Vishnu shrines did not lessen. Yashaskara's councillor and Kshemgupta's (950-958) courtier, Phalguna founded the temple of Vishnu (Phalgunasvamin). Maternal grand father of Queen Didda raised the foundation of Vishnu temple, Bhimakeshava (now the present day resting place of Muslim-turned-Hindu Saint, Baba Bamdin Sahib). Original material of the temple though covered inside and outside with the thick coating of plaster, can still be visualised. The ruins are about a mile to the north of the sacred spring of Bhawan (dist. Anantnag) on the left bank of river Liddar. A series of Vishnu temples were built by Queen Didda herself. One she built in the name of her deceased son Abhimanyu, another in the name of her father Simharaja and two temples in her own name as Vishnu Diddasvamin²¹³. A large number of Vishnuite temples built during the period indicate its wide extent all over the valley.

The devotional urge exhibited by the rulers, queens, high-ups in the state hierarchy and the people in general to the worship of Vishnu and Shiva gave birth to composite images of Harihara, combining in itself both the features of the gods into one. One such image exists in Berlin Museum²¹⁴ and other image has recently been located in a small temple at Dhumatabal near Kokarnag, district Anantnag²¹⁵. In case of Berlin Harihara image,

the presence of the terrific face of Kapila at the back in addition to three heads in front comprising of benign Shiva head in the middle, his terrific form, (Bhairvas head) on the right and Varaha (Vishu's form) face in the left points out that the image had its inspiration from the Vaikuntha aspect of Vishnu²¹⁶. The other attributes of Vishnu and Shiva are clearly understandable. In case of Dhumatabal Harihara image, three heads are repeated in the same pattern and besides other attribution of the gods, their Vahanas, Nandi (bull) and Garuda (eagle), are distinctly depicted.

Another feature and that too of a very lasting character was the appearance of the conception of *Shakti*, the female energetic aspect of the two gods. She became to be known through different manifestations like Parvati, Uma, Durga, Kali, Chandi or Chamunda—the wrathful, Shri or Lakshmi etc.

The Kashmir valley itself is the material manifestation of Sati or Gauri or Uma, the consort of Shiva. She, for the benefit of the people assumed the form of the holy river Vitasta (Jhelum)²¹⁷. She became one with Shiva and both were worshipped in *Ardhanarishvara* form representing their conjugal life. This was the hermaphrodite form of Shiva. In it, He was represented on the right half while on the left, Parvati occupied the space. Both of them were distinct by their respective attributes or *Vahanas* (vehicles). This form too was a very popular object of worship in the valley²¹⁸. Shrines were erected in honour of this deity²¹⁹. Kalhana himself invokes the blessings of this lord while starting his monumental work *Rajatarangini* (the river of kings). In excavations at the capital city of Avantivarman, an image of this form of god was found in the premises of the Avantisvamin temple. The two sons of the couple, Ganesha and Karttikeya are also displayed²²⁰.

The goddess Lakshmi or Shri has been conceived as Vishnu's wife. His second wife was supposed to be mother Earth, *Bhudevi*²²¹. The god's feet in his *Seshashayi* form (when reclining on snake Ananta) rest in the lap of Lakshmi or are being massaged by her as displayed in an unique image located in a small temple at Dhumatbal near Kokarnag in Anantnag²²². An isolated image of Lakshmi has also been found there. An image of goddess Shri or Lakshmi from Bijbehara datable to about 6th Century carries Greek attire and some of the Gandharian characteristics²²³. In the same period, King Pravarasena II is said to have erected five shrines in honour of the goddess²²⁴. Again a remarkable image of the goddess in her *abhisheka* (bathing) form was found in Avantisvamin temple²²⁵. An image of Shri was raised by Rakha, merely a Brahman foot-soldier after he in due recognition of his valour was elevated to the post of Prime Minister by king Unmattavanti (937-39)²²⁶.

Bhudevi is generally shown in almost all the images of Vaikuntha form of Vishnu. She emerges from the pedestal looking like the earth in between the legs of the lord. With her palms touching the feet of the god, she looks upwards towards the master in rapt attention²²⁷.

Along with the widespread worship of Shiva and Vishnu, the worship of *Saptamatrikas* (seven mothers), or *Devi* or *Matricakras* (the circle of mothers), the counterparts of gods as Brahmani, Vaishnavi Maheshvari, Kumari, Varahi, Indrani, Camunda was also popular. In the valley even at present sacred diagrams carved on stones called *devicakras* (the circles of goddesses) like the *Shricakras* (on Sharikaparvata), Hariparbat, *Rajnicakra* (Khirbhavani), village Tullamula, *Jvalamukhicakra* (village Khrew) in district Srinagar are places of great reverence²²⁸. Associated with Tantra, these were placed around the sanctuaries of Shiva or his terrific form

Bhairava. The prevalence of their worship in the valley is demonstrated from archaeological sources also as a number of life-size sculptures of these *Saptamatrikas* (seven mothers) have been discovered from an ancient Shaiva site of Pandrethan near Srinagar. These sculptured images are remarkable for their iconographic and artistic niceties²²⁹.

Out of many river-goddesses held sacred in the valley²³⁰, Ganga and sometimes Yamuna also were given due recognition in carving out their sculptures along with their vehicles in the temples of Martanda and Avantisvamin, district Anantnag.

Along with the worship of Shiva and Vishnu, the devotion to *Bhairava* (terrific form of Shiva) was also prevalent. Sculptural form of this god was invariably represented in Shiva *Maheshvara* (great god) images from Pandrethan and Gupkar sites, now in the S.P.S. Museum. These are *Trimurti* (three-headed). The benign face of the Lord is in the middle, *ghora* (terrific) face on the right and a feminine face of Uma on the left. In the collection there is a standing figure of four-handed Bhairava also from Pandrethan. In his upper left hand, he carries his usual emblem of *Khatvanga* (club with human skulls), Shiva's emblem *Trisula* (trident) in his lower left hand, a *rosary* in the upper right hand, the lower right hand is damaged beyond recognition. In a similar form, a seated figure of four-armed Bhairava is represented in a trefoil niche on the southern side of the main shrines of Martanda²³¹. Such presentation continued for a pretty long time as is evident from a late figure of three-headed Bhairava flanked by *matrikas*, now fixed in the Shiva temple (under worship) at Bijibehara²³². The manifold forms of Bhairavas were regarded as the guardians of Kashmir and were worshipped in different localities under different names.

They were not always taken as terrific aspects of the god but were benign and the source of *amrita* (nectar) as that of Amriteshvara Bhairava²³³. Even Sadashiva representing five faces of Shiva is synonymous with that of Svachchanda Bhairava and Shakti as Bhairavi²³⁴. It is on account of Shakti that Shiva appears in forms which are conditioned by space and time²³⁵.

Like Shiva, the Shakti (goddess) was also worshipped in *Saumya* (benign) and *ghora* (terrifying) forms. She was the motivating force behind so many god-concepts i.e. various forms of Shiva, incarnations of Vishnu, Brahma, Ganesha, Karttikeya, Surya, Agni, Kamadeva, *Saumya* or the benign forms of Shakti were known as Uma, Parvati, Gauri, Sharada or goddess of learning (goddess Sarasvati) etc. and *ghora* (terrifying) forms of the goddess were represented by Camunda (wife of Yama), Kali, sometimes Durga as *Mahishasuramardini* (destroyer of buffalo demon).

Among the incarnation of Vishnu Govardhana (Krishna), *Mahavaraha* or *Varaha* (boar) and *Nrisimha* (man-lion) were popular.

Brahma along with Shiva and Vishnu formed the trinity aspect of the composite form of the God. One of the three snowy peaks to the west of Banihal was named Brahma. Though acknowledged as the creator of men and even of gods, he could not occupy any prominent position in the religious devotion. Vishnu and Shiva actually overshadowed him. His position was confined to his emergence from the lotus grown in the navel of Vishnu. Shiva is prayed for punishing and chastising Brahma for his moral lapses²³⁶. Very few shrines or sculptural representations of the god are forthcoming. Against so many places dedicated to Shiva, Vishnu or Goddess Durga, only three are mentioned to have been existing during the middle of

sixteenth century which were sacred to Brahma²³⁷. In the valley, two types of Brahma sculptures, single-headed and four-headed, were located—One image is single-headed, four-armed with four attendants representing the four Vedas and datable to 7th century from Kashmir is in the Museum für Indische Kunst, Berlin. This figure is in bronze but its superb artistic skill makes it as one of the prized collection of the said Museum²³⁸. A four-headed Brahma, in stone, dressed as an ascetic, with a skin of an animal on his left shoulder has come from Avantipura, the capital city of King Avantivarman (855/6-883). Its refinement of the surface reflects it as a typical characteristic product of Kashmir during the period under report²³⁹. Brahma, however, was not accorded the central position as that of Shiva or Vishnu and as such his images were not very large in number and show fewer varieties.

The popularity of Shiva and his consort, Parvati, was shared by their two sons Ganesha and Karttikeya.

Ganesha known as Vinayaka is one of the popular gods of Hindu in the valley. He, from early times was regarded as the giver of success in one's undertakings²⁴⁰. In about 1400 B.P., King Pravarasena II worshipped the already existing shrine of Ganesha known under the name of Vinayaka Bhimasvamin, lying at the foot of the southern extremity of Sharikaparvata (Hariparbat) and just below the Ziarat of well known saint of Kashmir Mukkadum Sahib, the founder of Kubrawi-order in Kashmir. From the ruins of Avantipura (1100 B.P), Ardhanarishvara image (representing both Shiva and Parvati) have standing figures of their children, Ganesha and Karttikeya on their either sides. A number of figures of Ganesha were also recorded from Avantipura. This place was the prominent centre of Ganesha-worship as it has been mentioned that the sizeable quantity of sweets

offered to Lord Ganesha here by the devotees were afterwards resold in the market. The god is supposed to be the remover of all obstacles and bestower of success and as such he receives first offerings in any religious functions even now. Karttikeya on the other hand, was an object of much worship in the post-Kushana period. After having been identified with Sage Sanatkumara, he is named as Skanda also²⁴¹. Skandagupta, the minister of king Yudhisthira II, son and successor of King Pravarasena II built a Vihara in his honour which he named after himself as Skandabhavana Vihara. Originally a Buddhist site, its popularity became more prominent by the existence of temple of Kumara or Skanda adjoined to it²⁴². The wide publicity of the god was in particular due to his being the guardian of children besides being the war-lord. The children of the house where he was worshipped remained always free from diseases and in token of this, he was pleased by the offerings of toys, cocks and goats²⁴³. As a battle-leader, he was equipped with a thunderbolt, well decorated wreath, a quiver of arrows, etc. It is displayed in the figure of the god attached to the main image of Ardhanarishvara at Avantipura²⁴⁴. The early worship of the god is evident from a stone sculpture of six-armed Karttikeya from Bijibehara. Its muscular body, deep folds of the garment, the style of hair, locks falling over the shoulders on either sides, bear close resemblance to the features of the images of Kushana period from Gandhara and Bactria indicating thereby the artistic debt of Kashmir to that tradition²⁴⁵.

The Surya was always an object of excitement and wonder. The Neolithic economy in the valley depended on the movement of the Sun itself. The pre-historic man of the period gave vent to his feelings of reverence for the god in carving out his motifs on a stone slab excavated

in the lower levels at Burzahom²⁴⁶. In medieval times, Solar worship continued to be popular. King Ranaditya (c. 580 A.D.), built the temple of Martanda or Sun under the name of Ranapurasvamin (identified as the Ziarat of Pir Haji Muhammad in Srinagar). The name of the shrine spread everywhere²⁴⁷ and enjoyed considerable sanctity till very late period. It indicates the popularity of the deity. Lalitaditya erected the shrine of Aditya (Sun) in his own town of Lalitapura (modern Latpur on Srinagar-Avantipur national highway, about 26 kms from Srinagar and offered to the Sun-god here the conquered territory of Kanya Kubja (Kanuj) and the villages. King Lalitaditya's unparalleled devotion to the god is clear from the marvellous and imposing temple built in his honour under the name of Martanda on a fascinating plateau overlooking the modern village of Mattan (also called Bhawan) and the lovely plains below²⁴⁸. Among the sculptural representations here, group of Adityas, Surya flanked by attendants with the charioteer Aruna holding the reins of seven horses are distinct. The figure in the sanctum of the temple is presumed to be that of Surya on the pattern of the Bronze of the god in the collection of the Cleveland Museum of Art, U.S.A.²⁴⁹ The dress of Surya images elaborately decorated or the long boots worn by them again refer to Gandhara prescription or the Kushana monarches.

The Surya worship continues to be popular even during these days. On seventh day of solar fortnight in the month of Ashada (July), Sun god's *mandala* (circular diagram) is drawn with radiating rays by using various fascinating colours. This is normally drawn in the compound or the main corridor of the house and thus indicates the reverence paid to the age-old Surya cult.

The worship of Agni or Fire occupies a prominent place in every religious function. No function is complete without lighting the sacrificial fire. In the valley, the Fire God was worshipped at the sacred site of *Svayambhu* (self-originating fire) in the village of Nichhama in Machipura locality below Baramulla. The miracle observed here is that the fire emerged from the earth and people used to flock here and cooked the food on *Shraddha* (function in honour of deceased relatives) offerings on the burning ground. The people believed that it is an abnormal display of the powers of nature²⁵⁰. It remained a place of pilgrimage for a longer time. *Svayambhu* (modern Suyam) is referred to in *Nilamatapurana* (v.999) and as in the case of important *Tirthas* (holy places), this *Tirtha* has also its own *Mahatmya* (legend relating to spiritual merit, benefits to be derived from the visit and the rites to be undertaken on way to the shrine, under the title of *Svayambhu-mahatmya*²⁵¹. Despite absence of sculptural representation, the worship of fire god was an important aspect of religion of the medieval times.

The lovetorn society was more prone to the influence of Kamadeva (god of love). The god found for himself the sculptural representation in the famous temple of *Avantisvamin* erected by King *Avantivarman* (855/6-883 A.D.). It is six armed and is shown in the company of his two consorts, *Rati* and *Priti*, flanked by either a female or a lion at either extremity²⁵².

The valley of Kashmir from early times is known as *Sharada Bhumi* (the land of *Sharada* or *Sarasvati*, a form of *Durga*). In this land of *Sarasvati*, seekers after light and learning came here from distant regions of the Far East and West Asia²⁵³. A temple dedicated to goddess *Sharada* (*Sharadasthana*) occupied a prominent position on a hill above the junction of the *Kishanganga* stream

with the Madhumati (now under Pakistan). In the temple, books were worshipped as these are generally associated with Sarasvati—the goddess of learning, famous in the valley as Sharada. The pilgrimage to the shrine attracted the devout from very ancient times. The warriors of Gauda (Bengal) secured entry into Kashmir under the pretext of visiting the goddess Sharada so as to take revenge from Lalitaditya who murdered their king even after he had given surety for his safe journey and stay in the valley²⁵⁴. It enjoyed great reputation in the valley even in the sixteenth century²⁵⁵.

The conception of religion in Kashmir during this period had broad-based roots. Associated in one way or the other with the Brahmanical cults, there were many other deities, demi-gods, Yakshas, Nagas, Gandharvas, Vidyadharas, Apsaras etc. who were also venerated by large sections of the people. They were displayed in various religious shrines where they occupied subordinate position to the main sectarian gods or goddesses.

With such a great zeal for promotion of Brahmanical order, Buddhism continued to receive its due recognition. The king, queens, nobles and others raised religious shrines, Viharas, Mathas and convents for the followers of Buddhism. These were ornamented with a large number of Buddhist sculptures which distinctly prove that this faith was still popular in the valley during the period of present study. This is the proof of age-old secular tradition of Kashmir.

Several Buddhist manuscripts were written during 6th-7th century A.D. which were found in a stupa in Gilgit²⁵⁶. Ascribed to this period, many sculptures of Buddha, Bodhisattva, Avalokiteshvara, birth scene of Buddha etc. have come from an ancient Buddhist site of Pandrethan (ancient Puranadhishtan, the capital

city of Emperor Ashoka)²⁵⁷ The Karkotas of Kashmir who were Hindus by faith, patronised Buddhism also. Ananglekha, the Queen of the founder of this dynasty. Durlabhavardhana, built a Buddhist Vihara. The great king of this dynasty, Lalitaditya, embellished his capital city of Parihasapura with a big stupa, a monastery and a chaitya. His minister, Cankuna built a Vihara here and at Srinagar also. His son-in-law, a physician by profession built his own Vihara. Lalitaditya patronized and enlarged the stupa at Huskapura (modern Ushkar) near Baramulla. These shrines were provided with fascinating Buddhist sculptures. Prompted by his secular and liberal attitude towards different faiths, the king of Lata (ancient name of territory of Central and Southern Gujarat) built a wonderful Vihara besides the famous shrine of Vishnu. King Jayapida of this dynasty erected a Vihara in his newly established township of Jayapura (modern Anderkot) and set up three images of Buddha²⁵⁸.

The thriving state of Buddhism during the period of Karkota rulers is attested by Chinese travellers, Hiuen Tsang (631 A.D) and Ou-Kong (759 A.D) who came to the valley. They visited the Buddhist shrines, stayed in some of them, studied the then available literature and recorded about the sympathy shown to Buddhism by the rulers who were Brahmanical in their faith. The popularity of Buddhism rose to such an extent that Buddha was included as an incarnation of Vishnu and on his birthday, he was to be worshipped with eatable offerings, flowers, clothes, jewels etc. The residences of Buddhists were whitewashed. The poor were fed and the function was to continue for three days²⁵⁹. The absorption of Buddhism into Vaishnavite cult is evident from the group of images depicted on the weightly frame excavated from Devsar (anc. Devasaras) on the upper course of river Vesu (anc.

Vishoka)²⁶⁰. Some of the notions of Buddhism were accepted by the Spanda and Pratyabhijna schools of Kashmir Shaivism²⁶¹. This process of assimilation, no doubt, broke the spirit of Buddhist sectarianism. There is no sculptural evidence or architectural member belonging to Utpala period which followed Karkotas in the middle of 9th century. Some of the rulers had anti-Buddhistic feelings. Kshemgupta (950-958) burnt down the famous Jayendravihara, took away the brass image of Buddha from here and the mass of the stones of the Vihara were utilised by him for erection of Shiva temple²⁶². This isolated incidence does not reflect any annihilation of the faith. On the other hand, his queen, the last ruler of the period under study built a Matha (convent) for the residence of people (probably Buddhists) coming to the valley from outside²⁶³. Not only this, a fine statue of Bodhisattva Padmapani (bronze) seated on a double lotus with two goddesses on either sides, carries an inscription referring to the Laukika year 65 i.e. 989 A.D. The date falls in the reign of the queen. The statue was donated by one, named Rajanaka Bhima, a devout Buddhist²⁶⁴. This image, now preserved in the S.P.S. Museum, Srinagar, is the most ornate example of its kind in the valley. There are equally elegant other metallic images of Buddha, Bodhisattva, Virocana Buddha etc. which too speak of Buddhist expressions. These are housed in private collections, institutions in India and abroad. Belonging to the period under study, these are the brilliant examples of early metal art in Kashmir. These depict an amalgamation of the styles of the ancient north-western regions, the traditions of northern and north-central India after the Gupta period²⁶⁵. All this suggests that Buddhism was still a living force and enjoyed its own position in cultural, artistic and intellectual fields. In the mid-11th century, he was represented as the personification of Krishna and

continued to be regarded as one of the ten incarnations of Vishnu²⁶⁶.

Art and Architecture

The cultural sequence over the Kushana levels at the excavated site of Semthan is encountered by 4 m thick deposits and has been recognized with the galaxy of monuments of the valley and the sculptural wealth exposed by archaeological works from time to time²⁶⁷. The period represents warming up of the climate according to the data furnished by interdisciplinary field work. With stable climatic conditions there was a great deal of economic prosperity and expansion of human settlements²⁶⁸. This involved the movements of people among different regions providing an easy course for intercultural interactions. The valley with such mass movements became a meeting place of the cross currents of different peoples and cultures. The archaeological record now confirms the presence of Indo-Greeks in the valley as a result of which novel school of Indo-Hellenic art developed here and with the help of local talent reached a highest degree of excellence. The period between 1500 to 1000 B.P. marks the glorious era of sculptural wealth either in terracottas, stone or metal. These are represented both by Buddhist and Brahmanical sculptures which are the pride of Kashmir. Along with these, the structural complexes of temples, stupas and monasteries were raised which too are the standing examples in the form of surviving monuments as unique specimens of architectural art in Kashmir. In spite of heavy destruction of these monuments, sculptures and associated artifacts, it is still possible to place together the history of Kashmir's achievement in the field of art and architecture from whatever specimens are available and what the archaeologist's spade has provided to us.

Sculptures

Associated with the Early Historical settlement, mention has been made of striking and wonderful collection of terracotta heads or busts of Buddha, Bodhisattvas, ascetics or lay devotees from Kushana King Huvishka's capital Huvishkapura (modern Ushkur) in Baramulla. On the analogy of Jaulian (near Taxila), these were assigned to 5th Century A.D.²⁶⁹ on the presumption that King Lalitaditya had erected a monastery here in 8th Century A.D.²⁷⁰. New evidences have now come to light which necessitates a revision of these views. Firstly, the scientific clearances of the stupa or monastery revealed here an earlier plinth over which after a gap of more than three hundred years, Lalitaditya built his own structure. The material utilised in these is quite distinct²⁷¹. Secondly, Tormana's coin of 5th Century found over the earlier plinth also attributes its construction to an earlier date. Thirdly, terracotta tiles found here lack maturity and lustre which one finds in Harwan tiles. This was a flourishing town in the north-western region of Kashmir and the monastery already existed here on Hieun Tsang's visit to Kashmir in 631 A.D. as he stayed here for one night before proceeding to the capital city of Srinagar. All this suggests an early date for the terracotta heads which could be slightly earlier than just beginning of 5th Century but in no case later than 5th Century.

Amazing art-style in terracottas contemporary to these finds or even earlier displaying a variety of stylistic features from north-western India or from Gandhara or post-Gandhara traditions have been reported. These pertain to fertility goddess and headless Bodhisattva and carry Hellenic forms and characteristics with Buddhist attitudes and motifs²⁷². Ascribable to 5th-6th century, the only find in terracotta of Brahmanical pantheon was a crudely executed figure of Shiva as

Bhairava. This was encountered from excavations at the famous temple of Martanda while digging the area below the temple level ascribable to 5th-6th Century A.D.

Kashmir can very well boast of having produced a variety of stone and metal sculptures which have made significant contribution to Indian art. There are numerous seated and standing figures of Buddha, Shiva, Vishnu and other associated divinities which are impressive, energetic and magnificent in their composition. Like Gandhara, the Kashmir valley had large variety of stone material which in fact is responsible for the production of fairly large number of sculptures in stone than in metal. Kashmir served as a refuge for Gandharians, more so after the Huna invasion. As such the early sculptures found in the valley display Gandharian impact. Gandhara belt itself had received its inspiration in the field of art and architecture from Indo-Greeks, Greco-Romans, West-Asiatic regions, Sassanians, besides the Guptas in India. All these elements penetrated in the valley. The local artists were quick to pick up the main characteristics of their art and with their own inborn talent, educational background and spiritual experiences, they were able to create a magnificent wealth of sculptures to suit their own local rituals and religious needs.

The early stone sculpture belonging to 5th Century A.D. (1500 B.P) is a seated buskined figure (lower parts only) which could be of a Kushana monarch. The presence of an animal, probably a stylised lion at the back, the long garland and the folded garment worn by it leads one to believe that it could be the figure of Kubera or of the Sun god²⁷³. This could also be a Kushana chieftain seated on a lion throne. However, this figure is the only one of its kind in Kashmir²⁷⁴. It is from the ancient site of Pandrethan, the capital city of emperor Ashoka. Again in the rich collection of S.P.S. Museum is

the defaced image of six-armed Karttikeya. Out of the six arms only two arms are intact. The lowermost right hand rests on the neck of its vehicle, peacock, and the corresponding left holds the hem of drapery. Its hair-style, long ear-lobes, wavy locks falling over on either sides of the shoulders, deep-folded garments, jewelled wreath, armlets, a belt holding a short dagger on the right side, treatment of streamers, its favourable vehicle, peacock at the back and single threaded Brahmanical cord round the body indicate a combination of cultural traits of Kushana period from Gandhara, Bactria, Gupta schools of northern and north-central India, Sassano-Iranian elements and of Fifth Century works found at Udayagiri, Madhya Pradesh²⁷⁵. Worship of this god was very much popular in post-Kushana period²⁷⁶. It appears to be the first image of the god in Brahmanical cult in the valley which carries Buddhistic conception of Gandhara. This notable figure is from Bijibehara, ancient Vijeysvara.

With little variations but commanding similar artistic features are other excellent masterpieces in the rich repertoire of archaeological gallery of S.P.S. Museum, Srinagar. The outstanding projection in these sculptures is in the disposition of dresses and the folds of draperies. These are again from the historical town of Bijibehara and are stylistically closer to Gandhara school of art. Assigned to 5th-6th Century A.D., the first in the series is the figure of Shri or Lakshmi, the goddess of wealth. In particular, its attire is purely Greek. The other images are of Vishnu, mostly damaged and mutilated, which show expression of simplicity and claim priority of being single-headed over the three-headed type—being the chief characteristic quality of Vishnu in Karkota period²⁷⁷. An image of Gajalakshmi from here is flanked by lion represented by their large heads and crossed fore-paws. The figure is an example of crude workmanship and

resembles the *Matrika* images of Kushanas from Mathura²⁷⁸.

Like Vishnu images of Bijbehara, there has come one more image from Baramulla which is also significant for not having been provided with additional heads. All such types of Vishnu images display initial stages of development of Vaikuntha (Vishnu) images in 8th-9th Century.

Unsurpassed in its composition, style and magnificence is the discovery in recent years of a multifaced Shiva from the outer premises of temple at Fatehgarh about 5 kms below Baramulla. The figure measures 1.76 m x 0.57 m and is unique of its kind so far found in Kashmir. The principal image is three-headed, the central one being of *saumya* (peaceful) type. The smaller heads on either sides represent Bhairva on the right and *Uma* (Shiva's consort) on the left. Thus the two aspects of Shiva, *saumya* and *ghora* (terrible) are combined with his Shakti. It is three-eyed and wears *Jatamukuta*, long ear-lobes, necklace in three rows, sacred thread, long garland touching the feet, and *Srivatsa* symbol on the chest peculiar to Vishnu images. The image on this side has four hands and the one of the upper right hand, the only intact one, holds a rosary. The interesting part of the god is its demonic countenance on the back. It is clad in tiger's skin with a lion's head carved on the flap of the loin cloth on the left thigh. The hairs are seen projected in wavy movements going upwards. Its three protruding eyes, flanked by long eyebrows gives it a dreadful posture. It is bedecked with ear-lobes and the sacred thread made of serpents (snake). It has an open mouth and through it two canine teeth emerge in an upward direction and thus enhance its fearful look. Curiously enough it carries the Vishnu's symbol *Srivatsa* also. His two hands are put near his abdomen holding a trident along with a dangling bell.

The most interesting part of the addorsed image is that at the head of both the principal and its ferocious looking figure at the back, two tiny images are depicted. The front one is a seated figure holding a water pot and the rear one is shown in Lalitasana. The former is identified as Ganga or flying Gandharva or most probably a Bodhisattva in the posture of a Yogi. Incidentally, Kashmiri bronze statue of Bodhisattva Maitreyas in Mr. and Mrs. H.K. Swali's collection at Bombay also holds a pot in its left hand²⁷⁹. The other tiny figure at the head of the other figure in the back could be that of a flying Yaksha or *Batuka* or *Vatuka* (Youthful) Bhairava who is projected in a graceful pose. The youthful god is invoked for the holy inspiration of Shakti (Uma) who in turn helps a seeker towards the realisation of the supreme bliss²⁸⁰.

In all probability this assorted image of Mahesvara or Sadashiva ascribable to 6th century marks the synthesis of Buddhism, Vaishnavism and Shaivism. In future production of sculptural art, individual components of this multipurposeful image served as a basic ground and a guideline for promotion of social and religious life of the people.

During 6th Century, the ancient city of Puranadhishtana was adorned with Buddhist and Brahmanical buildings with sculptures of both the faiths by King Pravarsena I, the son of King Meghavahana who was brought from Gandhara. Excavations at the site in 1913 unearthed the remains of two dilapidated stone stupas, the quadrangular rubble built enclosure probably of a monastery. The Buddhist sculptures have included two standing images of Buddha, standing figure of Bodhisattva Avalokitesvara or Lokeshvara, a seated image of Buddha in meditation, the upper part of a sculpture representing the birth of Siddhartha besides some

fragmentary images. Further, while digging for a military barrack in 1922-23, some twenty Brahmanical sculptures were encountered here. These are three-headed Shiva, some are standing and some seated, Bhairava, four-armed seated image of Ganesha, female goddesses like Ganga etc. besides five sculptures, almost life-size, of *matrikas* namely Indrani, Varahi, Vaishnavi, Maheshvari and terrible-looking Chamunda. The King Pravarsena I is said to have constructed a temple of Pravareshvara (Shiva) also together with a circle of *matrikas* (*matrichakra*)²⁸¹. All the sculptures are housed in the S.P.S. Museum. Incidentally it may be mentioned that the group of mother goddesses (*Saptmatrikas*) were established around a Shaiva deity or shrine and the site of Pandrethan is known for a number of holy shrines of Shiva and his counterpart, Shakti.

An impressive bronze image of the Buddha belonging to this period in museum is distinguished with late Gandharian features. Its right hand is raised in the *abhayamudra* (the attitude of granting immunity from fear) and in the palm of this hand is engraved the auspicious mark of Chakra (wheel). The most significant mark is the presence of a propitious wart on its forehead which could stand for the third spiritual eye of Shiva. Wearing long ear-lobes and clad in monastic garment, this standing figure is the best projection of ascetic life of the Lord.

A mutilated image of single-headed and four-armed Vishnu in the collection of Srinagar Museum is from Bijbehara. Crowned with an elaborately jewelled three-peaked typical Kashmiri head-dress, it wears long and loose garland (*Vanamala*), a diamond necklace and its lower two hands rest on the heads of *Gadadevi* and *Cakrapurusha*, the two *Chamri* bearers. Standing in a *tribanga* pose, it is dated to 1300 B.P. (7th Century A.D.)²⁸². The next three

hundred years witnessed a remarkable growth in the production of Vishnu images when instead of one head, he was represented with four heads and other associated details as described in the Pancaratra Vaishnavite doctrines, the most popular cult during these three centuries of Kashmir's history of art. The art of Kashmir reached the zenith of its glory especially during Karkota rulers who had infallible faith in Vaishnavism. The composite figure of Vishnu represents benign face of Vishnu in the centre, the lion head representing Nrisimha on the right and boar head symbolising Varaha incarnation of Vishnu on the left. While the central face stood for Vasudeva, the other two on the right and left stood for Sankarshana and Aniruddha respectively. The fourth face at the back represented fierce-looking Kapila symbolising Pradyumna. Of his four hands, the upper right and left carry respectively the stalk of full blown lotus and a conch-shell, while the corresponding lower two hands rest above the heads of Gadadevi (personified mace) and Chakrapurusha (personified wheel). Both these figures hold *Chamra* in their right hand. The mother earth emerges in between the god's feet with her face turned upwards towards the master and her palms touching his feet in adoration. The figure is clad in dhoti and is heavily jewelled with ornaments, necklaces and armlets. It has *kaustaba* (srivatsa mark) Jewel on the bosom and wears the sacred thread. The long loose garland falls down to his ankles. The Brahmanical caste mark is on the forehead. On the right hip, a short dagger is stuck in the belt, a very extraordinary feature with such images. Vishnu with his *vyuhas* called as Chaturvyuha or Chaturmurthi or Vaikuntha became most popular form of Vaishnava cult in Kashmir. The people were so much attracted with this cult that even the great Shaiva philosopher Abhinava

Gupta quoted it in a commentary of his Parmarthsara²⁸³. This form of Vishnu spread from here to other Himalayan regions as well.

The phallus (Linga) worship was raised into prominence. Now Shiva lingas outnumbered the images. Separate shrines were erected for them. Lingas partially represented by human faces were also patronised. One-faced Shivalinga (*Ekamukha linga*) is situated on the right side of river Jhelum in Baramulla itself. At village Sheri about four kilometres below Baramulla, four-faced (*Caturmukha*) Shiva Linga exists. Still the number of lingas was much more than the human representation of Shiva forms. Lingas in various shapes and forms have been found at many places in the valley. Colossal Shiva linga was installed in the temple at Fatehgarh, a village above Sheri and nearly about five kms from Baramulla. Similarly another gigantic and still standing Linga with a sacred thread is lying just outside the ancient site of Ushkar. Slightly smaller in height, other one has been exposed on a higher plinth to its east. In this way, the worship of Shiva lingas gained momentum in the valley and continued to be so even now.

The phallic emblem was worshipped by all the Shaiva sects. In bronze such representation has been reported in Pan-Asian collection, the only specimen from Kashmir datable to 8th - 9th Century. Stylistically; the bronze resembles the *Ekamukha Linga* (under worship in the Sakti Devi Temple) at Chhatrahi situated at a distance of 25 miles south-east of Chamba²⁸⁴. Numerous impressive and interesting images in bronze stand documented both of Brahmanical and Buddhist faiths²⁸⁵. Because of Lalitaditya's patronage to the followers of all the faiths, a glorious period had dawned for Kashmir sculptures that adorned the numerous shrines built by him. Along with stone not only bronze, but gold and silver images were

also consecrated in the temples and Buddhist shrines. His influential minister Cankuna placed in his own Vihara at Srinagar, the bronze image of Buddha which he had brought on the shoulders of an elephant from Magadha²⁸⁶. A number of stone sculptures have been found from his stupa built in Lalitaditya's capital at Parihasapura. These include corned Buddha, both seated and standing, Bodhisattvas in monastic robes, Yaksha figures or atlantees with their hands or heads supporting the weighty entablature. In one of the standing figure of Bodhisattva, Vishnu's auspicious mark of *Srivatsa* symbol has been placed upon its chest²⁸⁷. This shows that the artists adopted the iconographical canons of the Brahmanical deities in their Buddhist Sculptures. Another figure of standing Buddha from Parihasapura is crowned with pearl designs, folded garments and Sassanid-type streamers. The auspicious wart on the forehead could be the prototype of third spiritual eye of Shiva²⁸⁸.

In spite of a different faith, Lalitaditya patronized all the religions, Shaivism, Vaishnavism and Buddhism and thus sowed the seed of unity and integrity of the nation. The artists have excellently expressed the syncretism of religious toleration, unity and assimilation of different canons in their sculptures. This trend continued in the next two centuries as well with vigour and enthusiasm. The indication of social values and religious beliefs of those times is very well known from the two most prominent and important archaeological finds (bronze) now in the collections of S.P.S. Museum, Srinagar.

The one outstanding illustration is Bodhisattva Padmapani, seated on a double lotus supported by a well-carved pedestal and flanked by seated goddesses, Tara and Bhrikuti. Both are seated on a lotus with their legs crossed at the ankles. The lower part of the pedestal carries inscription according to which the bronze image was dedicated during the reign of Queen Didda, one of the

most illuminable queen in the history of Kashmir who ruled between 980-1003 A.D.²⁸⁹ It wears richly designed *dhoti*, necklace, Brahmanical sacred-thread, bejewelled belt, earrings, scarf and deep folded under-garment. Its six arms display *abhaya* (fearlessness), *Varada* (boon-giving) gesture, rosary, lotus and staff. The lotuses held by the attendant goddesses probably imply the symbol of grace and beauty. The geometrical and scroll motifs have added further lustre to the bronze image—a key object in the history of Kashmiri bronzes²⁹⁰. The tiny figure of Tathagata Amitaba, symbolising the spiritual ego of the Bodhisattva, is seated on the tiara in front in the attitude of meditation. Among the attributes of the Bodhisattva and female companions, lotus stands distinctly distinguished and as such is named Padmapani (lotus-bearer).

Another find, the most impressive and unparalleled in the history of art of Kashmir is the brass frame (*prabhavali*) of a Vishnu image obtained in excavations (1931) of ancient Narasimha temple (as the excavator called it) from the village Devasara or Devsar (ancient Devasarasa), District Anantnag²⁹¹. It weighs 99 kgs 200 gms, measures 6'-4" high, 4' broad, nearly 1/2" thick and is in one piece completely covered with figural manifestations. The outline of the frame looks like a curvilinear tower of north Indian temple with its finial. The central part resembles the trefoil arch, typical of Kashmiri architecture. The apex of the arch and the two sides of frame mostly represent different incarnations of Vishnu with mythological details, Nagas rising from the water, Shiva, the god with an elephant head at the top besides depiction of sun and moon with Iranian boots and halos, lotus stalks of Sasanian heritage and lakes of Kashmir. The central figure, missing in the frame, is suggested to be of Buddha on the basis of

characteristic features of gods, lakes, lotus stalks prominently displayed in the massive frame. Like the Bodhisattva Padmapani of Queen Didda's time, this masterpiece of Kashmiri metal art symbolises the absorption of Buddhism into the Hindu syncretism and could be of the same date²⁹². Besides the bold, forceful and graceful representation of animal or vegetal motifs, flying Gandharvas, Yakshas, Vidhyadaras, Kirtimukhas (lion heads) along with the human figures in various poses in the temple complexes indicate the brilliant manifestation of artistic skill of the artisans.

Pottery

The potter's art in the period under review reflects a fairly advanced knowledge of baking and burning. The pots were well levigated and had many types and shapes. Large number of earthen jars for storage of grains were prepared. In the house floors of Martanda temple both in the early levels and the level contemporary to Lalitaditya's enlarged phase, these were found in their intact positions. The art of terracottas was also developed subsequently. Instead of a specimen of Bhairava figure obtained in the earlier phase at Martanda²⁹³, many such finds in a developed form were found in the Awantipur excavations which included a female deity in *lalitasana* (sportive posture), Ganapati, earthen vessel bearing crossed legs of a seated figure, bowl with a pair of *garudas* facing each other (inside of the pot), figure of sheep, horse, bell, Shiva-linga, toy of grinding mill, inkpot, earring, different types of incense burners besides storage jars as found at Martanda²⁹⁴.

Coinage

In the field of coinage, the land of Kashmir remained at the fag-end. In comparison to economic prosperity,

expansion in trade and manufacturing of sculptural wealth in precious metals, the monetary system was not so developed. The state derived its revenue from different sources like land-tax, fines and tributes from the feudatories. The revenue was collected both in kind and cash. In latter case, it was based on shell or cowrees and by copper coinage. A deterioration in currency system might have been due to the disturbed state of the country. The copper coins of Toramana or Mihirakula continued for a longer time. Their type was continued by the Kidara-Kushanas and Hindu kings who followed them. The valley possessed natural resources and also the precious metals. Nilamata purana refers to hundred Suvarnas which, in fact, refer to hundred pieces of gold or gold coins²⁹⁵. Pravarasena II had a coinage both in gold and silver coins but had close connection on the one hand with the Toramana coins and on the other with coinage of the Kidara-Kushanas who were the successors of Imperial Kushanas. Against it, the coins of Karkotas were of crude workmanship. Durlabhavardhana, the founder of this dynasty struck coins in his name but the type remained the same. The great king of the period, Lalitaditya, who ruled the valley for long 36 years did not strike any coin in his name. After his victory over Yashovarman of Kanuj, he bore another name of Pratapaditya and the coins with the legend 'Sri Pratapa' have been found in different parts of India conquered by him during his campaigns. He had to do it for commercial transaction and for payment to the soldiers. Jayapida-Vinayditya, grandson of King Lalitaditya struck coins (with headless seated goddess and standing king type). He got hold of a rich mine of copper through the blessings of the Naga of Mahapadama lake which enabled him to issue the large quantity of copper coins. Even if presence of copper mine was reported to be popularly connected with Jayapida's mining operations

by later historian²⁹⁶, there is no copper coin directly associated with his name. On typological basis, the coins of Yashovarman are attributed to him or the other rulers of Karkotas and others, as all of these were of uniform style. Their coins had a rude figure of standing king and seated goddess and had no gold coin to their credit. The latest examination of the coins showed that they were of mixed metals having gold contents of about ten to twelve per cent, silver content of about thirteen to fifteen percent and copper for the remaining portion with nickel admixture²⁹⁷. From Shamkaravarman (883-902) onwards, there is a long and uniform series of coins referring to the kings who followed him. In the list, the set of coins during the closing stage of the period under study were issued in the joint names of Queen Didda and King Kshemgupta. This unusual practice of inscribing the queen's name on the royal coinage was to highlight her importance in the affairs of the Government over and above the king himself. It is not true that Kashmir was not skilled in minting gold coins. On hearing the good government of King Yashaskara (939-948), a Brahman had entered the valley with a hundred gold coins and even the king is said to have left the kingdom at the fag end of his life with two thousand five hundred gold pieces bound up in the hem of his garment. This was his private property²⁹⁸ but had actually nothing to do with the monetary system in general. The coins issued by powerful Karkotas were of a bold type but rudely executed and most of them were made of mixed metal. Such types continued in successive periods as well.

The rulers, it is known, paid less attention to carry on the transaction in cash. Actually, the rice or Dhanya (Shali) formed a kind of subsidiary currency in Kashmir. Such a system existed till the end of last century when salaries to government servants were paid in grain or oil-seeds. Even private persons paid their servants in

the same way²⁹⁹. In short, the monetary system of medieval Kashmir was based on the cowree unit and represented in its main bulk by a copper coinage, and supplemented in all the transactions of public business or public life by the quantity of rice or shali in Khari (present day Kharwar equivalent to over 80 kgs)³⁰⁰. Government revenue from the landlords or peasants even in our times was estimated by sacks of shali.

Paintings

Literary evidence leaves no doubt that the art of painting was cultivated during this period in Kashmir. On the festival of Buddha's birthdays, the abodes of monks had to be whitewashed and Chaityas, the abode of gods, had to be decorated with paintings which is a living practice with the Buddhists in Ladakh. The paintings were painted on cloth, walls and the ground³⁰¹. the paintings of Buddha Avalokiteshvara and other episodes connected with Buddhist traditions on the covers of Gilgit manuscripts of 7th century are varied and graceful. These have close affinity on iconographical considerations with certain paintings of Bamiyan in Afghanistan, western Tibet, Dandan Ulike, Farhad Beg Yailaki and Balawasti of Chinese Turkistan. Muscular treatment, human faces and draperies in some of the paintings in Gilgit manuscripts show Gandharian influence³⁰². Politically and culturally too Gilgit formed part and parcel of Kashmir on its north-west. With the change of religion and lack of patronage to Buddhist tradition much of the painting material in the valley is lost. The authors of Brahmanical texts of later dates especially the Mahatmyas (hand-books of individual Tirthas) supported their devotion in writing these treatises by inserting the paintings of the gods and

goddesses in them. *Bhumishobha* (decoration of the ground) was a necessary item for undertaking any religious or secular function³⁰³. A special painting of *Svastika* or *Yantra* diagram associated with every personified icon was drawn on the ground while taking up the worship of a particular goddess or god or even for lighting of the sacrificial fire. *Surya mandala* is drawn on the ground of the compound or in the main corridor of the house on 7th bright half of *Ashada*. A circular pattern with all the fascinating colours (*Kashmir Vieug*) is also drawn on auspicious ceremonies³⁰⁴. On it a bridegroom has to stand before leaving for bride's house for marriage, then together at the latter's place and again while leaving that place and also before re-entering in his house with the bride. This is also an important function, observed by the house people after concluding of the *Yagnopavit* (ceremony) of their male children. Like the Buddhist *Chaityas*, on a function before the marriage ceremony or *Yagnopavit* function of their children, the main entrance of the house is decorated with impressive designs of paintings.

The overall description of assembly halls, palaces and theatres which were normally illuminated with lamps, and made resplendent by the white dresses and jewels worn by the members. These halls must have been made more enjoyable with paintings of secular themes as distinguished from religious ones. The courtesans were becoming popular by utilising the art of painting at these places and in this way could promote their trade³⁰⁵.

The artisans used different painting patterns while weaving their woollen clothes. The people of Kashmir were in know of the art of weaving from neolithic times. In this period it gained speedy momentum and *Pattana* (modern *Pattan*) became famous as it happened to be the centre of weaving of such woollen clothes.

The study of sculptural collections, rich vegetal and impressive geometrical or decorative patterns of the period reveal a dynamic strength, power and indigenous of Kashmiri artists which is further displayed in the architectural achievements of the country.

Temples and Other Buildings

The period under discussion heralded a new epoch in the history of Kashmiri architecture. The religious edifices had to be built for the enshrinement and safety of the marvellous images. These belong to both Brahmanical and Buddhist faiths but former marked by temples outnumber the Buddhist sanctuaries. These, though in ruins, are the standing examples of the splendour and magnificence of the cultural horizons of past societies.

In pre-Buddhist period, the divinity of conception rose from the pre-historic megalithic traditions of the valley. Any vertical mountain peak, erratic or uncanny stone in the open was symbolically revered as a divine spirit. The manifestation of trinity (Brahma, Vishnu and Shiva) marked by bold pyramidal summits to the west of Banihal pass or the cosmic energy marked by Goddess Durga on the north-west side of Hari Parbat hill were worshipped initially in the open. The open *Shilla* (holy stone) of Durga or of mother Sharika on the hill bears Shricakra or the Yantra (symbolic lines) of the goddess. These criss-cross lines creating geometrical configuration could be seen on the full moon-night throughout the year but were of late obstructed by erection of a temple over it³⁰⁷. This sacred Shilla or Stone has been worshipped since ancient times and it is obvious that it was preferred to be worshipped in the open. The conception of temples also arose from these self-born images. The sanctuary or a temple in itself is a symbol or rather an aggregate of various symbols. Its sanctum, the plain cubical cell bore in the beginning the

stamp of primitiveness and were derived from the pre historic dolmen or a structure of two or more unhewn stones³⁰⁸.

The symbolic worship in the valley of Kashmir was followed by the religion and philosophy of Buddhism and then again switched to growing cults of Shaivism, Vaishnavism, Shaktism and other associated divinities of Brahmanical religion. Kashmir did develop its own distinctive style of architecture but was certainly influenced by Gandharian style of architecture.

The Buddhist structures were built of bricks with a moderate amount of timber. Being of perishable material, almost all these buildings have perished. The tradition of building such Buddhist structures continued as late as 12th Century. During Kalhana's own period, a brick shrine was built to house an image of Bodhisattva Avalokiteshvera instead of wooden shrine which had formerly been constructed but was burnt down. The place is Arigom, ancient Hadigram, a village of the Nagam Pargana in district Badgam. This is confirmed by the discovery of the stone inscription from the site³⁰⁹. The inscription is an important find as it indicates that the earliest style of construction of Buddhist shrines in wood and bricks continued even after the period under study. Out of the two styles of architecture concerning the two faiths, there are a few Buddhist but more and numerous Hindu monuments. These shrines built at different times proclaim the flourishing period of the history. With less patronage to Buddhist faith during this period, an era of temple building swept the valley. It was an epoch which implied great religious concentration of Brahmanical faith when in every hamlet, town or village temples, fashioned in stones, rose singly or in groups as is proved by the remains present all over the country. In mid 12th Century, Kalhana, himself records that there was not

even so much land left that could be covered by a sesamum seed and which was not sacred³¹⁰. These ruins are models of refinement and elegant in architecture. The superb location of the temples, fluted pillars supporting the pediments, colonnaded cells facing an open courtyard and the elevated shrine at the centre, pyramidal roofing, ornamented niches, walls, pilasters and above all the trefoiled arches, characterise the Kashmiri temple of an indigenous architecture combining with Gandharian and an extra-Indian art motifs and impulses³¹¹. The superiority of Kashmiri architecture reached its glory during the reign of Karkotas and Utpalas (8th-9th Century) which makes it out that the Kashmiri artist was fully conversant with *Vastushastra* (rules of architecture) and the guidelines laid down in the local treatise on Hindu architecture³¹². The architectural development in the valley continued to be produced over a longer period and could be grouped in three recognised periods.

1. Pre-Karkota period (5th-6th to 7th Century).
2. Karkota period (7th-9th Century)
3. Post-Karkota period (10th Century)

The earliest specimens of temples falling under pre-Karkota period are the Shankaracharya temple on the summit of the hill to the south-east of Srinagar, enclosure wall with the gateway of a Hindu temple to the north of the five-domed superstructure of a temple base housing the mortal remains of a liberal Muslim king, Zain-ul-Abidin's mother (1420-1470 A.D.) near Zainakadal in Srinagar and a larger temple out of the two at Ladou, district Pulwama at the base of a hill range and at a distance of about 15 miles south-east of Srinagar. All the three edifices have round-headed arches, a style of architecture which was common in a series of temples

outside the valley. Literary references refer the erection of Shankaracharya temple to Gopaditya who granted *agraharas* (rent-free lands) to Brahmanas from India, the land of Aryas—the plains of rivers Ganga and Yamuna. The *Gopa-Agraharas* as these were named, are the fertile plateau at present occupied by Gupkar locality at the eastern foot of hill.³¹³ Raja Gopaditya is reported to have reigned from A.D. 253 to 328. Only the low enclosing wall adorned by 84 round-headed range of cells and the high octagonal plinth was assigned to this date while the ceiling of the sanctum and the columns belong to later times³¹⁴. The date so mentioned is an exaggerated one as during this period, the valley was witnessing heydays of Buddhism. However, the simplicity and plainness of the structure, domical type of original ceiling, arched recesses, the plan of the cell, circular inside and square outside displays the beginning of the architectural style of stone temples in the valley with its inspiration from Chaityas and other Buddhist buildings of Gandhara. It is not also justified to place the construction of temple to 7th Century or so earlier³¹⁵. This date has been assessed without taking into consideration, the temple complex of Pratapaditya II at Tapar built in the centre of the courtyard on the pattern of such temples built later on at Parihasapura, Martanda by Lalitaditya, Avantipura, by Avantivarman and at Pattan by Shankarvarman³¹⁶. The reign of Pratapaditya has been assumed to be the middle of 7th Century.³¹⁷ As such Shankaracharya temple construction can easily be placed in between 5th-6th Century. In the valley this is not a solitary instance. There are evidences other than this which share common characteristics and are important as they serve as a prelude to great monumental religious sanctuaries which rose later. Again to the north of its base is a low cell, a plain structure with a circular-headed low entrance and carry similar architectural features. The enclosure wall

with a series of similar type of arched cells and the gateway belonging to an ancient temple near the tomb of Zain-ul-Abidin's mother were ascribed to 4th-5th Century A.D.³¹⁸ In view of the discovery of Pratapaditya's temple of vast size and impressive appearance, the date of 5th-6th Century to this structure seems plausible.

An excellent illustration in this group of monuments is the temple of Rudresa at Ladou. Its sanctum as that of Shankaracharya temple is circular inside and square outside, the sequence of wall mouldings, pediments, semi-circular dome and the true round-headed arch of the entrance or the roof pattern definitely makes this shrine as a model for the advancement of typical Kashmiri style at a later date. It, with a very little variation, resembles with the Vihara of Guniyar in Swat valley and accordingly its date has been determined not much later than 5th Century A.D.³¹⁹ In this group also falls the earlier phase of Martanda temple³²⁰ which is now confirmed by the excavations also.³²¹ The temple is situated in a tank fed by natural spring in which a 4 feet high Shivalinga was found. This indicates that the temple was dedicated to Shiva worship. At a distance of about 100 yards from here, higher up the hill and to its northeast is a smaller temple which externally resembles the larger temple. The main difference is that on its round-headed doorway is an architrave surmounted by a sunk trefoil enclosed in a small pediment. This appears a just a beginning of the full trefoiled entrance or the recess enclosed in a steep pediment which is the chief characteristic feature of temple architecture of the mature phase of temple complexes in the valley.

Among the Buddhist sanctuaries of the period were the two dilapidated stupas and the quadrangular rubble-built enclosure, possibly of monastery excavated in 1913 from an ancient site of Pandrethan, 5 kms to the south-east of Srinagar. A fairly good number of Buddhist

sculptures were found also here. Since the site or the remains correspond to other structures like tooth-relic stupa or the monastery mentioned by Hieun Tsang, their presence obviously goes back prior to the days of Hieun Tsang's visit to the valley in 631 A.D.³²²

Kashmir under Karkotas had well-organised cultural, commercial and political intercourse with the Greek-inspired western kingdom of Gandhara, Central Asia, China and other regions of Indian sub-continent and continental Asia. The sudden acceleration in the architectural evolution was due to dynamic ruler Lalitaditya who came on the throne of Kashmir in the first quarter of 8th Century. He encouraged with outstanding impartiality both Buddhism and Brahmanism by erecting imposing edifices dedicated to each creed. In fact, the founder of the dynasty, Durlabhavardhana in the beginning of Seventh Century, was a Vaishnavite by faith, built a temple of Vishnu in Srinagar whereas his queen built a Buddhist Vihara³²³. The famous Chinese pilgrim who visited soon after his accession to the throne, was given warm reception and accorded all the facilities during his two years of stay in the valley. This incentive on the part of the founder of the dynasty had a lasting influence over his successors which resulted in the remarkable growth of art and architecture.

The excavations carried out at the ancient site of Pratapapura (modern Tapar) laid out by Pratapaditya, the son of Durlabhavardhana, revealed the remains of a central shrine in the midst of a courtyard with raised-up plinth of an enclosure wall for the cells facing the shrine and an imposing gateway on the west. The study of the remains here in respect of cellular quadrangle, central shrine, gateway, behaviour of pillars, columns, niches and the rectangular courtyard makes it out that the Kashmiri artist started to combine his basic indigenous genius and skill with those of Buddhist monastic shrines

from Gandhara which produced a distinctive style reaching its culmination in the time of his son Lalitaditya, mid-eighth century.³²⁴

The architecture of Kashmir experienced two golden periods: first under Lalitaditya who maintained a prolific architectural activity displaying all the components of the developed form of Kashmiri temples, then Avantivarman who in the later half of Ninth Century made it more refined and dignified.

The Martanda temple, dedicated to Sun god, is the most striking and a symbol of the grandest achievement of architectural genius of Kashmir. Situated on an elevated plateau and at a distance of 5 miles from the town of Anantnag, it commands a fascinating environment befitting the grandeur and grace of the Sun god.

The temple was built in two phases which is evident from the clearance work undertaken in the middle of this century at the site. There already existed another temple of somewhat smaller dimensions prior to the construction of the present one. While reconstructing the temple by Lalitaditya, the older temple base was not demolished. Most probably the older temple is attributed to Ranaditya who ruled from 578 to 594 A.D.³²⁵ The then excavator also observed two platforms one being enclosed within the other. The inner one contained different gods and goddesses of the Hindu Pantheon carved on the facing of the walls but these were concealed in places by the huge blocks of the outer platform which was constructed afterwards along with some of the subsidiary shrines erected in the courtyard of the temple. Most of the images of the inner platform exposed by the excavator bore the coating of red lead which showed that the temple was under worship with only one platform.³²⁶ The habitational deposit associated with the early phase of the temple also now stands identified.³²⁷

The present temple as it stands now contains all the finished and perfect architectural elements which became model for subsequent productions of religious edifices.

The central shrine standing in the centre of a spacious rectangular courtyard is surrounded by a celluled peristyle entered by two chambered imposing gateway on the west. The exterior and interior walls of the gateway are profusely decorated by pedimented niches alternating with rectangular panels. Most of these contain floral scrolls, pairs of geese, birds, *ganas* (goblins), *vidyadharas* (flying celestial figures), *gandharvas* (celestial minstrels), miniature figures, representations of miniature temples with double-tiered triangular roofs. Each of the two large niches in the side walls of the inner chamber contains the image of three-headed Vishnu flanked by two attendants. Some niches display amorous groups while at the bottom a long rectangular panel is decorated with a row of dancing urchins in different poses. Each of the miniature representations of the structures carry a standing deity within the trefoil niche. Oblong panels separate these miniatures by ornamental motifs.

Descending from the steps of the inner chamber of the gateway comes the courtyard which was originally paved with stone slabs. Near the stairs of the main shrine, is a square tank fed by water brought through a stone channel from a canal on the hill side at the back. The temple is composed of three parts viz. *garbhagriha* (sanctum), *antarala* (vestibule), and *mandapa* (hall mostly on columns). The last one is approached by a series of majestic flight of steps from the west. The *mandapa* is flanked on each side by two-chambered structures. Their niches face east and west respectively which may symbolise the rising and setting of the sun or probably were meant for installation of images of the consorts of

Surya. The entire structure rests on the outer platform supported by the inner one also. Against the smaller niches of the earlier platform, the upper one contains bigger niches housing Brahma, Shiva, Vishnu, Parvati, Ganga, Yamuna, Surya, Dikpalas etc.

The peristyle is the largest specimen of its kind. A fairly high basement running all around supports the cells and a colonnade of fluted pillars. The number of pillars is 84, sacred to the sun, being the multiple of the number of days in the weeks and the number of signs in the zodiac. The horizontal slabs of the imposts connecting the two sloping sides of the roof were ornamented with human-headed birds, *Kinnaras*, *Ganas* and *Vidyadharas* carrying garlands.

A small square platform towards the east of inner steps of the gateway must have been the base of a standing pillar with the image of Aruna at the top. The cells were meant for housing the images. A seated image of Ganesha was obtained from the fallen debris of one of the cells during the course of excavating the outer area on the southern side of the complex. Similarly, there are several subsidiary shrines which were again meant for enshrinement of images. In the north-western corner shrine, the upper portion of a large Shiva linga is still existing. On the platform of north-eastern corner shrine, an inscription composed in verses in the highly ornate style of the classical Sanskrit in the Sharada script too was found by the then excavator, a known scholar of Sanskrit in Kashmir and incharge of the Departments of Archaeology, Research and Museum in the State. According to him, it refers to the installation of an image of the Sun-god on the platform of the shrine by Avantivarman, king of Kashmir (855/6-883)³²⁸, on palaeographical grounds, the date falls by the end of 9th

Century A.D. which obviously coincides with the reign of this king.

The sanctuary or the sanctum is absolutely bare. This must have housed a colossal image of Surya. It must have been of a precious metal befitting the grandeur and vastness of the temple. In his various other temples and monasteries, the king preferred large-sized impressive images of gold, silver and bronze. The standing bronze image of Surya at present in the collection of the Cleveland Museum of Art (8th Century) is said to be the replica of the image which graced the *garbhagriha* (sanctum) of the temple.³²⁹ The antarala is decorated with niches, two of them flanking the entrance to the sanctum containing the standing figures of river-goddesses, Ganga and Yamuna with their vehicles. In such grand and prominent temples, these goddesses are meant to purify the devotee of his impurities before entering the sanctum for concentration of the enshrined image there. The *mandapa* is likewise ornamented with rows of niches crowned by pedimented gables. These niches, divided in lower and upper sets, contain three-headed Vishnu, Shiva and other deities in the lower one. The upper set comprises of 14 niches, six each on the north and south walls and two on the east. One of these on the east represents Surya (defaced) on the chariot driven by seven horses whose reins are held by the charioteer, Aruna. The position and character of the various parts of this massive temple-complex and from reference to other surviving temples (intact ones) in the valley, it can with certainty be presumed that its roof was of pyramidal type.

The well-designed expanded structural units, massive peristyle with a range of cells, bold trefoil arches, lavishly executed surface decorations mark this temple as a masterpiece of architectural representation during the

medieval history of Kashmir. Its affluent maturity of different components display exceptional character and elegance which served as a guideline in the production of such edifices in the succeeding reigns.

The stupa already built at Huvishkapura (modern Ushkur) at Baramulla was also enlarged like that of Martanda. The king adorned his capital city of Parihasapura with four Vaishnava temples in which golden, silver and clad in golden armour Vishnu images were installed. Along with these, he built Buddhist buildings like a royal monastery called Rajavihara with a large quadrangle of twenty-six cells facing the courtyard; a Chaitya with a double base, a flight of steps on the east and with an entrance originally covered by a large trefoil-arch. Here a colossal image of Buddha was installed. Chankuna, the Tikhara minister of the king built a stupa consisting of a double platform one above the other for affording adequate space to the worshippers for purposes of circumambulation. As the case with the other surviving monuments here, its super-structure has entirely disappeared. Over the ruined heap of stones, is a huge block with a 5' deep hole in the middle. This could be the final part of the stupa. It has four stairways centred in each cardinal directions flanked by rails and walls with pilasters ornamented with the carvings of seated and standing figures of Yakshas or atlantes. A good number of these figures were encountered here in the excavations in the past and now in recent clearance work. The magnificent religious establishments have surpassed all the ancient buildings of Kashmir in grandeur and architectural excellence like the world-famous Sun temple of Martanda. However, by embellishing his capital city with Brahmanical and Buddhist edifices, King Lalitaditya is credited with an unrivalled reputation for wisdom and for maintaining integrity of the state.

The group of temples built in the midst of dense forests with lofty pine trees at Naran-nag, three and a half mile to the north of Village Wangath in the Sindh valley has a surviving temple, square in plan which is prominent by its entrance, niches, domed ceiling crowned at the summit by full blown lotus. This is identified with the Jyeshthesha temple built by King Lalitaditya. Kalhana himself saw many of the religious edifices built by Lalitaditya and has accordingly recorded that he laid down sacred foundations in every town, village, river or sea. There are instances where religious shrines were raised by the rulers or the persons who mattered in the harem to gain religious merit in the period which followed. The typical stylistic features reached its logical culmination in the two temples of Avantisvami and Avantisvara built by King Avantivarman in his capital town of Avantipura at a distance of 18 miles from Srinagar on Srinagar-Jammu national highway. The style to a larger extent corresponds with that of the Martanda temple but these were provided with additional features which have made these edifices more refined and luxuriant in surface decorations, carvings of pillars and other geometrical, floral or figural reliefs.

Closely following the design and the plan of Martanda or the temples at Avantipura are the two temples below Baramulla on the Jhelum Valley Road. Both were dedicated to Vishnu. The first ancient monument nearer to Uri at a distance of 89 kms from Srinagar is Dethamandir (ruined temple). The central shrine here faces north-east and is built of beautiful green limestone. The main variation here observed is that its peristyle has no colonnade. Another visible difference is that the cells here are built of *Kanjur* (a light and porous limestone which when burnt turns into a super-fine lime). Against this the temple of Buniyar nearer to Baramulla and at a distance of 76 kms

from Srinagar is built of granite stone unlike other temples of the valley which barring that of Dethamandir are built of limestone. The temple has escaped the destruction possibly because of its remote situation. It is as such the best preserved temple in the valley. The temple is a replica of Martanda temple. It has a double-chambered gateway, standing on a two-tiered moulded basement with space for perambulation. Its cellular peristyle has 53 cells surrounded by a colonnade of fluted pillars with intervening trefoil recesses.

Another striking resemblances with such categories of Kashmirian architecture is visible from a single-chambered edifice of Shiva temple at Narasthan situated in an enchanting environment of lofty mountains of Tral area, district Pulwama about 32 kms south-west of Srinagar. The gateway, treatment of trefoil arches surmounted by high pitched double-pedimented trefoiled recesses and depiction of human-headed birds are some of the features similar to those of the developed forms found at Avantipura. The vital variation here is that it has a plain enclosure wall and not a peristyle. Absence of peristyle or cellular quadrangle is a common feature in the temples that were raised now onwards. There is a datable instance from one of the temple built by Shankaravarman (883-902), son and successor of Avantivarman in his new capital town of Shankarapura (modern Pattan), 27 kms from Srinagar on Srinagar-Baramulla national highway. The temple known after him as Shamkargaurisha was earlier referred to have a cellular peristyle. In recent years while digging the compound area for laying out the garden, no remains of the peristyle could be traced³³⁰. Smaller in dimension, is another temple built in the king's capital is named after his queen as Sugandesha. The temple does not differ architecturally from earlier temples but the sculptural pannels of the lower platform and the

flank wall of the lower stair remained blocked indicative of the fact that the temple remained unfinished³³¹. The peristyle or the row of fluted columns preceding the cells also does not present decorative or ornamental elements of the cellular peristyle raised earlier by his predecessors.

By the beginning of 1000 B.P., or after the temples at Pattan were put up, the growth of the style had come to an end. Architectural excellence dwindled, the raising of peristyle or cellular complexes were altogether left out. Instead small shrines were erected in different parts of the valley which too in their modest proportions reflect architectural impulses generated earlier³³². The most important class of monuments in this group is the Shiva temples at Pandrethan about 5 kms from Srinagar on Srinagar-Anantnag highway and at Payer, nine and a half kms south-east of Avantipura.

The temple at Pandrethan rests in the centre of a tank fed by two springs on its eastern side. The springs appear to have arisen after the construction of the temple. Access to the temple is on the north through a stone slab 12 feet in length and 2 feet in width. The water of the tank is drained out into Jhelum river by a channel which flows 200 feet to the west of the temple. In the trefoiled niche of the entrance is seated figure of Lakulisha form of Shiva which indicates that the monument was dedicated to Shiva and not to Vishnu as earlier believed³³³. A row of carved elephants at the base of the central shrine, bold projection of the pilasters supporting the pediments of the porches, the peaked, pyramidal roof in two-tiers divided horizontally by an ornamental band of dentils and a beautifully carved ceiling are some of the important architectural features of the structure. As compared to the plain interior walls, its ceiling is the most remarkable specimen of carving which became a uniform type of ceiling of many northern Indian temples. Twelve

triangles have been formed in three overlapping squares reducing the extent of opening to be covered. In the 12 residual corners, a group of flying *Vidyadharas* carrying garlands and floral offerings have been projected. The three overlapping squares have been crowned in the centre with a square slab exquisitely carved with a full-blown lotus within a beaded circle. Outside the border and at each corner of the squares is again depicted a flying figure with outstretched hands holding the circular border of the lotus. The ceiling is still the best specimen of stone-carving in ancient Kashmir.

The temple at Payer has a remarkable similarity with the Pandrethan temple. Being one of the smallest types of the group, it is right from the base of the platform to the top of the *Sikhara* (spire) most elegant and a striking example of Kashmiri architecture in the middle of 1000 B.P. The shrine has four doorways surmounted by a trefoil arch enclosed in turn by a pediment. The plain pediments rest on pilasters ornamented by capitals bearing pairs of geese with long foilated tails and those of the pilasters from which the trefoiled arch springs are ornamented with recumbent bull capitals. The trefoils crowning the doorways contain various manifestations of Shiva. The figure of *Lakulisha* is carved in the eastern trefoil, *Mahishamurti* in the north, *Nataraja* in the west and *Bhairva* in the south. The roof is pyramidal and as usual is divided in two parts by an ornamental band. Its domical ceiling is adorned by a ornamented lotus in the centre and *Yakshas* with outstretched arms and legs seem to support the roof. The temple is in its best state of preservation and is supposed to be an architectural gem³³⁴.

During the century 900-1000, kings who were even cruel and rapacious were patronizing erection of temples and religious institutions as was usually

expected from righteous, merciful and liberal rulers. Without any consideration of their dealings with the subjects, they took special interest in building of pious foundations of temples, mathas and endowments of *agraharas* (rent-free lands). These kings, their queens, ministers, wealthy merchants believed that they would earn religious merit by establishing shrines and *viharas* (Buddhist monasteries). These edifices even in their ruined state bear testimony to the continuation of the architectural tradition.

The only surviving ruins of Buddhist remains of the period in stone are at village Malangpura, halfway between Avantipura and Payar link road. Situated on the spur of a Karewa, the Stupa is recognised by its square base with projections on its two sides and large staircases facing cardinal points. The outer flank walls of the stairs were effectively decorated with sculptural reliefs. During this period, Buddhism made a nearer approach to Brahmanical theism because of its assimilative power. Both from literary and archaeological sources, it is evident that Hindus regarded Buddha as one of the incarnations of Vishnu. Hence shrines were also erected in honour of Buddha and Viharas or monasteries for the stay of Buddhists.

After the end of Karkotas and Utpalas, the two golden periods of Kashmiri architecture, the tendency to raise monolithic shrines became the order of the day. Most of these still survive in many regions of the valley projecting a uniform style of temple architecture on the pattern of Pandrethan and Payer³³⁵. These are at Pampur and Kakapur in Pulwama district, Mamal, Kother, Bumazuv cave temple, Bhima Shani temple complex (now the ziarat of Bamadin Sahib and his associates), Halsidar above Verinag Spring, Dumatabal (Kokarnag) in district Anantnag. Fatehgarh, Ferozpur (Tanga Marg), Miniature

temple in Manasbal, Garur (north-eastern shore of Wular lake), Temple in the lake, in district Baramulla and so on. These are still the invaluable source of the study of Kashmiri architecture.

Literature

The period under review saw the full development of the classical Sanskrit literature. For a long time, Kashmir was a seat of learning and it gradually spread in India and beyond its border. It was celebrated as the vale of wisdom. A galaxy of scholars adorned it³³⁶. In the beginning of this period many scholars produced works in all the branches of literature about which Kalhana in his *Rajatarangini* writes that many of them had composed works which were informative and well-written. One of them in the beginning of about 6th Century was Vasunanda, the ruler of Kashmir who composed a well-known work on erotics³³⁷. Another Kashmiri poet Candaka by name 'composed a play worthy of the attention of all people'³³⁸. Ascribable to this period is the *Vishnudharmottara*, a major Vaishnava Upapurana from Kashmir. Besides the usual themes of God Vishnu, it gives references and extracts from earlier works of Sanskrit literature. It also deals with fine art like dancing, singing, painting, sculpture, architecture astronomy, and numerous other subjects. At the court of Matrigupta, the king of Kashmir (later half of 6th Century), poet Mentha or Bharatmentha composed the poem *Hayagriva-Vadha* (the Death of Hayagriva)³³⁹. The king was so much pleased with his work that he honoured him by presenting a golden vessel below it, lest its loveliness or flavour might percolate³⁴⁰.

The archaeological discovery of Buddhist manuscripts from a stupa at Gilgit (titled Gilgit manuscripts) is an important contribution to Sanskrit literature. These deal

with racial, historical, religious and philosophical traditions of Buddhism in Kashmir and Gilgit. Originally, there were six manuscripts mostly written on birch bark. One is written on palm leaf. Three manuscripts have been put in three pairs of painted covers, some are in fragments³⁴¹. Subsequently through sale or otherwise, many more documents of these were obtained through various agencies in Pakistan and India. Some documents of these are preserved at various places in India, Pakistan, London, etc. A few of them are preserved in S.P.S. Museum and Central Asian Museum, University of Kashmir. These are written in changing forms of the post-Gupta Brahmi now called Gilgit Brahmi, unlike Sharada script in which most of the Sanskrit literature in the valley was written. A section of these Gilgit manuscripts, the earliest Sanskrit compositions, were in all probability composed in Kashmir. Unique of their kind, these were reported to be the earliest of their kind written in the 5th or 6th Century of the Christian era³⁴². On the basis of palaeography, these are assigned to 6th-7th Century when Gilgit was ruled by Sahi princes as is clear by epigraphical records³⁴³. These manuscripts even mention some of the Sahi rulers who owed allegiance to the rulers of Kashmir³⁴⁴. One of these reveals the name of a Sahi king Srideva Sahi Surendra Vikramaditya. It is apparent that he was ruling over Gilgit when these were written or deposited³⁴⁵. However, it is confirmed now from their studies and also from archaeological sources that by the end of 6th Century or in the early part of 7th Century (beginning of Karkota period) Buddhism was flourishing not only in the valley but in its distant north region i.e. Gilgit.

Equally important and of the same period, is Nilamata Purana or the instructions of Naga Chief, Nila. It gives a mine of information about the ancient people,

geographical data, religion, occupation, places of worship and the socio-economic life of the people. It is the earliest literary record of Kashmir which was consulted by Kalhana also while writing his *Rajatarangini* (River of kings) in mid-12th Century.

Two versions of lost Pancaratra (literature mainly dealing with Vishnu and his vyuhas) were *Brihat-Katha-manjri* and *Kathasarit-sagara* from Kashmir. These were named *Tantrakhyayika* of unknown authorship but nearer to the original text. The archaeological evidence of Vishnu images depicting vyuha cult in the garb of Vaikuntha-chaturmurti form have come from various places and shrines belonging to Karkota, Utpala periods and even after.

Many poets and writers flourished during the Karkota period who have by their composition glorified literary productions. Damodaragupta, Manoratha, Sankadatta, Cataka, Udbhatta and Samdhimat flourished in the court of Jayapida, grandson of Lalitaditya. Even the rulers of this dynasty were proficient in the art of poetry. In Vallabhadeva's *Subhasitavali* (the Sanskrit anthological literature of nearly 360 authors), fragments of poems written by Lalitaditya Muktapida and Jayapida have been recorded³⁴⁶. Poets Muktakana, Sivasvami, Anandavardhana and Rathnakara graced the court of King Avantivarman. His son and successor, Shankaravarman (883-902) was himself a poet and patronized poets and learned men like Bhallata, Jayanta Bhatta and Jayanta Bhatta's son Abhinanda, author of *Kadambari-Kathasara* (a versified abridgement of Banabhatta's prose romance called *Kadambari*).

Utpala's period is credited with the development of Shaiva faith designated as Trika Shastra. It has three different classes of work comprising of: (i). the Agama (original revelation or ancient tradition) Shastra; (ii). the

Spanda (speed) Shastra; and (iii). the Pratyabhijna (Recognition) Shastra. The exponents of this faith laid the foundation of a distinct school of Shaivism in Kashmir through their splendid and scholarly works, recognized as of world-wide interest and importance.

Shiva Sutra which formed the foundation of Trika system were revealed by Shiva himself to sage Vasugupta who after mastering them nicely taught them to his disciple, Kallata and others. Vasugupta who lived by the end of Eighth Century was blessed with Shiva-Sutras, the highest form of Shivagama. His disciple Kallata wrote commentaries on these called Spanda Karika, known also Spanda Sutras belonging to the Spanda Shastra division of Trika. The Shiva Sutras and Spanda Karikas together laid the faith of the Trika on a firm footing in the soil of Kashmir. The Pratyabhijna (recognition) Shastra gave the Trika the dignity of philosophy. Somananda (close of 9th Century) is the founder of this Shastra. His immortal work, Shiva-dristi offers philosophical reasoning refuting thereby the views of opponents. It comprises a little more than 700 verses divided into seven chapters each one called Ahinika, 'A daily Lesson'. He himself wrote a *Vritti* or commentary on it. His disciple, Utpala wrote as many as six works which are Karikas (running commentries) on his master's work so that its study becomes less difficult for the beginners in understanding the Pratyabhijna Shastra. Utpala flourished in the first quarter of 1000 B.P. His pupil Ramankantha wrote two commentaries, one on Matanga-tantra and the other on the Bhagavadgita, both of which are lost. His mission was carried on by his devoted pupils Khemaraja and Yogaraja. More or less, contemporary with these great personalities was Kshhemendra who was a great genius and wrote quite a number of treatises on diverse subjects for which he is described as a 'Polymoth'. His literary

composition throws a valuable light on the life style of the different sections of the people of those times.

In the later part of 10th Century or 1000 B.P., Kashmir was fortunate in having an outstanding celebrity, Abhinavagupta who was a genius and a profile writer. He was the celebrated pupil of Lakshman Gupta, the pupil and son of Utpala. He wrote as many as forty-one books which included not only reputed philosophical works on Shaiva literature of Kashmir but on other subjects like poetics, dramaturgy and Rasa—the soul of Kavya as propounded by him. His great erudition in his works has immortalised him for all times to come.

Settlement Pattern

The relatively greater frequency of religious edifices during the period under review suggests of substantial increase in the settlements and settlement patterns of the valley. There was as such growth of population which also coincides with the periods of climatic amelioration.

Literary and archaeological sources show that the period experienced impressive architectural changes, appearance of religious shrines near the centre of settlements, elegant and technically superb sculptural wealth and ceramic scatters implying thereby the importance of the territory and the higher ideals of the human life. There were varied types of settlements distributed in different districts (*visayas*). Each *visaya* comprised of one thousand temples and seventy five villages³⁴⁷. The number of villages in the two divisions of Kashmir, Kamraz and Maraz, is put at 66083³⁴⁸. The villages or the land grants were generously made to the temples and the Brahmans which in fact points to the prosperity of the settlers who inhabited the areas where the temples were raised. Despite the geographical

situation of the land bounded on all sides by high mountains, there was continued influx from Gandhara and other neighbouring regions because of the favourable climatic conditions. The immigrants could tread the inhospitable routes without risk to their lives or their livestock unlike their ancestors in the past. There was massive influx during the rule of enlightened ruler of Karkota dynasty. Lalitaditya opened Kashmir to outside influence. The lure of flora, fauna, seasons, impressive eco-system and undisturbed climatic conditions in Kashmir induced people from other regions to come over here in great numbers. Besides, he allowed all religions to flourish in his realm. After him in the reign of Avantivarman, Kashmir had an opportunity to undertake profitable schemes of irrigation and other welfare measures. There was exchange of scholars, men of knowledge, wisdom and learning between Kashmir and other parts of India and beyond. This also added to the increased tempo of settlements.

The pollen sequence marked by a warm temperate climate, favourable environmental factors, systematic drainage and irrigation operations resulted in the expansion of cultivation to higher reaches, consequent upon which settlements too spread to the higher elevations where rich soil with nitrogenous content and water was available for cultivation³⁴⁹. Rich and varied agricultural products gave birth to clustering of largely self-sufficient communities which characterise the settlement pattern. The country of Kashmir was endowed with abundance of shali crops, all types of grains, vegetables, fruits and other eatable items³⁵⁰. Numerous storage jars obtained in excavations at Martanda and Avantipura temple complexes argue for the density of occupation of prosperous settlements during the periods these grand temples were raised. Storage vessels or pits are the most recognisable type of settlement feature³⁵¹.

Recent archaeological excavations outside the enclosure wall of Martanda temple provided a cultural deposit of 12' marked by two distinct phases of temple construction. The house plans were demarcated by small rooms often plastered by compact clay with husk or cow-dung, the practice still followed in old houses of the village adjacent to the temple. In the earlier phase, the rooms were strewn with pebbles also. Thick red ware of this phase now changes in the next phase into red-slipped ware of thick fabric. No remarkable change is witnessed in the shape of the pots so far as their utilitarian purpose is concerned. Dishes, bowls, water vessels (*ghata*), lids and storage jars with or without lids are commonly met. The dish stand with a corrugated waist and bell shaped lower body (form of a Kashmiri Tashtari) in black slipped thin ware in the upper phase is an added ceramic production. The use of iron is distinguished in the earliest level by iron slags and iron rods. Both the occupational phases of the settlements are distinct by the remains of clayey hearth at the lower level and by clay-cum-stone hearths in the upper deposit. Apparently, the settlements here reveal self-sufficient living complexes.

In the clearance work of a structural complex at Wangath (Nara Nag group of temples), the floor was seen laid out with burnt bricks aided by brick-dust and lime.

The stones carved or otherwise were rarely used. In the settlements at Parihasapura, it was observed that the earth was rammed and the walls of the houses were raised gradually by frequent beating of the earth in stages till the required height was obtained. The facial appearance was adorned on the external side by carved stone blocks and the floors were laid out by stone flags. This has come to light while undertaking archaeological conservation of a Buddhist Chaitya here, the capital city

of Lalitaditya of Karkota dynasty (8th Century). The roots were of timber raised on beams laid out horizontally and consisted of tiers with sloping trends as is witnessed in the temple buildings of the period.

The archaeological material marked by monumental, sculptural, metallurgical (in the form of images, coinage and tools) ceramic and agricultural production demonstrates the pattern of the settlements of the period under study. However, unfair distribution of wealth or prosperity was a cause for worry. The sagacious king Lalitaditya warned his ministers that the villagers should not possess grain for consumption and bullocks for tillage of lands in excess of annual requirements³⁵². Indiscriminate distribution of rent-free lands led to the phenomenal growth of feudal complex. This resulted in varied types of settlements owned by rich and poor. In dignity, size and self-sufficiency, the settlements of the rich or well-to-do persons differed from those of commoners. The residences of royalty and nobility differed and were distinguished by the dimensions or set up as compared to those of poor people. In this connection, the story of the Charmakara (modern Chamar) or leather-maker is clear. The owner in the possession of land or his settlement, no matter how big or small it was, happened to be the sole master of it. The king despite his desire to build a temple over and above his land and residence could not take it away from him forcibly. The discussion that took place between the tanner and the king, Chandrapida (beginning of 8th Century) gives a vivid description of the two types of settlements. While the king's palace was resplendent with all the charming accessories, the tanner's hut was so simple or without ornamentation that it had its window made of the mouth of an earthen pot³⁵³. The residences of higher-ups had doors and ventilators and were whitewashed. They were

decorated with fruits, leaves and garlands of rice-plants³⁵⁴. While describing the general environmental conditions of settlements, it is recorded that these were provided with roads and crossing of four roads (*Catuspathas*)³⁵⁵.

Most importantly, the settlements of the period were spread out in villages (*grama*), towns (*pattana*) and cities. The villages were rich in their surroundings, water resources, fauna and flora. The residents were mostly agriculturists who happened to be the most important limb of the state to promote welfare of the kingdom and safety of the residents. The affluent citizens lived in towns and cities which were the principal centres of trade and commerce. These were founded by kings, queens and courtiers. The kings and queens lived in palaces which were multi-storeyed and multi-roomed complexes which were richly furnished. Separate structures were attached with the palaces for accommodating royal elephants, cows and horses, servant quarters, guard-rooms etc. One of the palatial building of Lalitaditya built in his chief capital town of Parihasapura was so resplendent that it surpassed the grandeur of Indra's abode even³⁵⁶. The prosperous citizens had their houses well built, richly furnished and spacious enough to contain large number of their family, well-wishers and relatives. The masses and poor people lived in their houses built of mud bricks, mud and timber. Such was the sharp distinction in the settlements of the various classes of the society. On the whole, these settlements were kept free from pollution and unwanted members of the society. There were separate alms-house (*sattra*) where indigent people would come to receive food. Monasteries or convents (*mathas*) were raised for *students* both for Kashmiri and foreign students, who were keen to pursue their studies. These

also provided shelter to the poor. For students from other lands, hostels were also constructed³⁵⁷. Kashmir was rich in grand forests and the timber was easily available. The superstructure of the houses in particular and essential items of the residences were mainly built of this material. In a cold place like Kashmir, the settlements had to be provided with a roof.

The settlements attached with the principal towns and cities like Tapar, Uskura, Patan, Parihaspura (Baramulla), Pandrethan (Srinagar). Latapura, Avantipura, Martanda (Anantnag), Pampore, Kakapore (Pulwama) and the one attached to chief shrine of Naran Nag in Sindh valley were spread over areas but have effectively been destroyed by repeated constructions of huge irrigation facilities or by undertaking large scale developmental operations. Besides the development, intensive cultivation had obscured the remains of former settlement. However, the presence of the ceramics defining the separate stages of occupations, iron slags, fallen members of columns, charcoal and ash accumulated after burning of the inflammable timber material are the best sources to get the knowledge of the settlement pattern of the period.

Subsistence Pattern

The presence of rich settlements has played an important part in the subsistence pattern of a society. The resources of the settlements and a fairly good impression of the environmental conditions give a thorough analysis of subsistent conditions at the settlements. Extensive agriculture, stock-raising, provision of basic necessities such as food, clothing and shelter, stimulated economic re-organisation and speedy growth of the settlements. The expansion of economic activity exercised a powerful attraction for up-bringing of dignified dwellings and life of a high status for the people.

Kashmiri village was the backbone of prosperity. It was a self-sufficient unit and there was a harmonious co-ordination among its administrative heads which included headman (*gramika*), administrator or collector of revenue (*gramani*) or skandaka³⁵⁸ and officer in charge of Home Affairs (*Grihakritya mahattama*)³⁵⁹ who had eight executive officers to work under him and eight orderlies to attend on him. The same mutual understanding existed among the special groups of workers like the carpenter, blacksmith, weaver, potter, shepherd, grocer, corn-dealer and all those connected with the village economy.

The upper classes of the people in cities and towns had high standard of living and led luxurious life indicative of economic prosperity they enjoyed. These observations were made by Chinese pilgrims, Hieun Tsang (7th Century) and Ou-Kong (8th Century) in their accounts which they wrote on their visits to the valley. Archaeological monuments mostly represented by temples, and sparsely by Buddhist Viharas, monasteries or Chaityas with a hoard of sculptures of higher technical order portray value-based settlements and reputation for power, wealth and skill of Kashmir during the mediaeval period.

The kings, queens and ministers had lavished great resources of the kingdom in building religious buildings in the towns and in the installation of images of their favourite gods or goddesses. There are instances when unscrupulous kings in their greed confiscated the property of temples, emptied their treasury to meet the huge expenses on wars, offices and the palaces. Shamkaravarman took profits from the sale of articles of worship from the shrines of the gods and straightway plundered sixty-four temples and resumed the villages in the possession of the temples and himself made the land to yield produce like that of a cultivator³⁶⁰. There is

archaeological evidence also when in decorating his township of Pattan and in construction of his temples there, he removed the material from Lalitaditya's capital city of Parihaspura³⁶¹. The large sized stone blocks, one of which is eighteen feet long utilised in the lintels is an indication that these were brought over from the nearby site of Parihaspura³⁶².

Brahmans, the privileged class of society, were the sole custodians of temple property, agricultural land attached to the temples, which also housed gold and other valuable metals. The majority of these Brahmans taught sacred texts, performed religious rites by serving as priests in token of which they received gifts in kind and cash. They used to attend the coronation ceremony of the king with golden jars in which they carried the water for the king's bath. They further increased their means of subsistence by practising magic, sorcery and black-art by selling flowers, sandal, oil, incense to persons going to the temples for worship. As an astrologer, he was the chief advisor of the king and had to perform rituals leading to his victory in the battlefield. In that capacity, he remained in attendance upon the king and conveniently enjoyed the income of about thousand villages which had been donated to a temple or the monastery. At times, he was bestowed with highly priced gifts which included jewels, villages, elephants, horses etc. With such manifold sources of income he paved way for the rise of Brahman feudatories. The number of peasant-proprietories increased. The cultivators paid taxes direct to priests, temples and not to the king. Wealthy and powerful Brahmans became ministers and councillors. Thus the seed of disintegration was sown. The imperial order began to crumble. The rulers who came on the scene after the end of Utpala dynasty were all too often lamentable puppets. The poverty of the peasantry was being

aggravated by the gradual creation of huge agricultural lands in the hands of Brahmans or the priests. Still the agriculture was the principal source of subsistence.

Besides *dhanya* (rice-crop), the staple food of the population, barley formed second important item of food. In times of scarcity of food, the dealers or the land-owners accumulated enormous profits while on the other hand agriculturists were curbed by the imposition of taxes.

The land also produced pulses and green vegetable. Pulses cooked with rice was known *Kicchari* which generally was used on religious functions. On 15th dark fortnight of Pausa (December), this food mostly mixed with meat is prepared even now and offered to *Yakshas* or celestial beings, most probably to ward off the woes and calamity inflicted on the people by *Pishacas*. This festival coincides with the festival of *pishaca prayana*—a historical event associated with the occupation of Kashmir by the *Pishacas*³⁶³.

Vegetables from the land were also of great importance and source of subsistence. These were essential pre-requisites for preparation of one's food. The common people took leaves of *Utpalaska* (Kashmiri *wopal hak*) which has its natural growth on the mountain places. Other nutritious vegetables were *Kaccaguccha* (a form of grass) and *sanda* (Kashmiri *hand*). They were not so tasty but were consumed as these had medical properties. Non-vegetarian food was also popular. *Walur lake* was rich in fish. Besides, in the winter months vast flocks of wild geese and other water-fowls visited the lake. A large number of these were shot by the inhabitants of the adjacent villages and sold in the cities and towns. The boatmen too caught fish here in the lake and other lakes who too depended on their subsistence on the sale of these.

The valley produced abundant fruits like the wild plum, peach, apricot, vine, walnut and these were of great help to the people as food. Among these the vine or the grape was the principal fruit for which Kashmir was celebrated from the very early times. This was considered as a relishable food and its juice together with the other indigenous product, sugar-cane, was distilled into spirituous liquor. Another important and most popular product from the land was saffron (*crocussativus*) which had a considerable commercial utility. At home, it was in great demand for purpose of condiment and pigment. It was a keenly sought product in its pomade or ointment form. It was source of great revenue not only to the owner of saffron-land but to the state also.

In Kashmir during the period, there existed communities with very different standards of living and who depended upon one another economically. There were goldsmiths, silversmiths, merchants for sale of cosmetics, cloth merchants and smiths. The gold ornaments which included ear-rings, bracelets, diadem necklaces, anklets were worn by kings, queens and high officers of the court. Apart from the literary references in *Nilamata purana*³⁶⁴, *Kuttanimata Kavya*³⁶⁵ or *Samayamatrika*³⁶⁶ there are sculptural representations heavily decorated with varieties of ornaments confirming thereby the standard of living of the rich and luxurious people in the contemporary society. With such brisk sale of ornaments, the goldsmiths and silversmiths had a flourishing business. Besides, these, skilled craftsmen made pitchers of gold, silver-stools and other such things required for household purposes. Weapons of war mostly of iron or such other hard metal indicate the existence of well-established smithery³⁶⁷.

In a cold country like Kashmir, woollen goods like blankets or homespun cloth (*pattu*) were in great demand.

Pattana (modern Patan) during Shamkaravarman's reign was the busiest market for the weaving of woollen clothes and for sale of the cattle. For a good fortune in the sale of woollen clothes, the merchant had to own a good flock of sheep for getting the raw material. The nobles or the rich men used woollen blankets of a fine texture, more or less a prototype of modern shawl. Against this, people of moderate income used to wear coarse woollen cloaks³⁶⁸. The fine product of shawl had to pass through many processes. The main thrust of its manufacture was on the shawl-weaver who almost led a miserable life. The overall ownership of the raw material was in the hands of the shawl merchant who had a lucrative earning in the sale of this much-wanted product, fine or coarse. Along with shawl and cloth merchants, there were leather merchants who manufactured doublets and shoes as these were also in great demand in the valley because of its cold climate. The type of rich dresses worn by men and women in those days is amply evident from many sculptures on the religious buildings and unearthed by the archaeological operations from time to time. While as the woollen clothes or leather items were worn in winter or on the occasion of first snowfall in the year, leather doublets or straps in time of unusual weather were used in the battle-field³⁶⁹. All these artisans as such had lucrative business.

The exterior walls of the temples or of the Buddhist establishments are covered with figures of divine and semi-divine beings from where dresses of various designs worn by the people belonging to the period under review could be gathered. Long hairs were kept to which combs were attached. The commoner used an ordinary cloth to cover his head but the kings, queens princes and rich braided their hairs in various designs and covered with tiara-type of head dress or had three-fourths of the head covered with a piece of superfine cloth. The dress of

women was mainly composed of saris, jackets and long folded robes sometimes touching the floor. In assembly halls, where distinguished people hailing from high families, nobles, princes had to attend on special occasions, they had to be distinguished by wearing resplendent head-dresses³⁷⁰ and garments. The craftsmen meant for preparation of these fashionable dresses were recipients of good remuneration from the customers.

The merchants dealing with cosmetics and other items for personal decoration carried on a flourishing business. In order to maintain their physical charm and beauty, the ladies used camphor, saffron and sandal-juice for their bodily embellishments. To perfume their bodies, they reddened their feet and lips with lac, scented their cheeks with leaves soaked with a strong perfume obtained from the male musk-deer. Stylistic flowers bound with locks were used for decorating the hairs or coiffures. There are references that there were other methods in vogue for the upkeep of the body and for personal comforts. The body was rubbed with softening unguents, then anointed with an ointment and sandal-paste soon after taking the bath. The various other scents and perfumes were applied³⁷¹. The other items of personal decoration were collyrium, comb, staff and other scented oils. A well anointed and well-decorated devotee worshipped the deity with the garlands and perfumes which were essential items for the worship. The deity represents the cosmological symbolism in an aesthetic garb. Sound and clean body helps the devotee in mental conception. A temple decorated with beautiful, ornamented and superb sculptures of deities was in itself considered to be an offering or an act of pious dedication of the builder which brings merit not only to him but to his family and the devotee who visits it for worship³⁷². In the valley huge sums of money were spent by the kings, queens,

ministers, nobles and rich merchants for raising such religious edifices in order to gain merit and ward off their ill-doings. On the other hand, it indicated the wealth and prosperity of builders, sculptors, devotees and the public at large who could offer such decorative items to the deity in the temple and consequently to the merchant who sold such costly cosmetic material.

Apart from literary records, the distinctive facial types of the people, their style of dress, upper or inner garments, the arrangements of the hair in elegant and coquettish curls or rich decorative coiffures is sufficiently revealed through the metallic and stone sculptures of the period. The men and women of every social and economic strata of life whether belonging to royal family, aristocratic or of noble family, courtly or fashionable ladies, musicians, dancers, or even ordinary beings of the society maintained high standard of living and cleanliness. The people in general were fond of betel leaves. The rich engaged betel-bearers who on demand would supply them with prepared betel-leaves, often mixed with lime. For purposes of perfume camphor with betel was used. By constantly chewing betel-leaves mixed with perumes, gaudily dressed and curly haired men could easily entice a passionate woman or a young girl through their dental speech³⁷³. They would also amuse themselves by witnessing dancing, singing and musical performances in the theatre-halls. The kings, lovers of dancing, music or plays, could see such performances in the illuminated assembly-halls of palaces³⁷⁴. The common men watched such attractive performances in the open sky³⁷⁵. The people also amused themselves in various sports and enjoyed themselves in garden-sports. The land of Kashmir was full of gardens and parks. On days of festivals or by way of amusing themselves, special meals were taken in the gardens in

the company of friends and the members of the family. Amongst the daily round of pleasures, the people with ample wealth and leisure at their disposal, participated in drinking parties, garden parties, dice and chess playing, gambling and other such amusements³⁷⁶.

The period witnessed material changes of far-reaching consequences. There was increase in population, in diversified occupations, in industrial and commercial complexes and above all towns and cities. The principal towns and cities with flourishing markets that came into being in these five centuries were Pravarapura (modern Srinagar), Ishbar (above Nishat), Amrit-bavan (Antibavan in Vicharnag), Avantipura, Lokapunya (Lokabhavana), Martanda (Mattan), Parihasapura, Jayapura (modern Anderkot), Padmapura (Pampor) etc. These included self-sufficient settlements with sound means of subsistence. The people of these settlements were engaged in agriculture, industry, crafts, trade, education, medicines and in other essential occupations. All these worked for the survival of their settlements convincingly demonstrated through wide range of investigations. They, with their hard work, tenacity and talent formed a unifying force for promotion of trade and exchange of goods between their native land and regions beyond. They thus created further resources outside the settlements which contributed to the subsistence activities. Commercial expeditions were successfully carried out. The flow of goods out of and into the valley had an effective economic gain for the large scale growth of settlements.

Trade played an important part in the cultural development as well. Export of luxury goods or import of articles not produced in the valley stimulated brisk movements on the principal routes which remained open because of favourable climate. Settlements, workshops,

commercial centres and watch stations sprang up on these routes and over the passes connecting the valley with foreign lands. Kashmir during this period came to be looked upon as India's northernmost limit of the inhabited world. One of the most widely exported products of Kashmir was saffron (*Kumkuma*). Kashmiri saffron was a highly sought-for product throughout India. It had a royal privilege. The rich men too used it for painting of the hair and as an ointment for massaging the limbs of the body³⁷⁷. It carried religious sentiments with it. Among the locals it was in great demand as it was regarded sacred for the *tilak* (forehead-mark) of the deity and the worshipper. As a condiment, it was used to give a flavour both to the solid or liquid foods. Other items of export were woollen raw material and clothes, hides, skins, leather goods, fruits. Like saffron, grapes also were famous agricultural product of the valley. Wine extracted from grapes was cooled and perfumed with flowers which was highly enjoyed especially on social gatherings, ceremonial functions and on the new snow-fall day³⁷⁸. The Chinese for the first time tasted wine made from grapes in 640 A.D. Its making was introduced there by ancient Sogdhians (centred around Samarkand and Bukhara) even if the Chinese already were in know of its existence³⁷⁹. Samarkand in particular was a prosperous city on the Great Silk Route. Both Samarkand and Bukhara lie on the lower Zarafshan valley—a highly populated area of the Central Asian Republic. In Samarkand, the famous silk route divided, one branch from Khotan, in Sinkiang, went due south, crossing the Karakorum mountains descended into Kashmir and India³⁸⁰. With Sinkiang, Kashmir was connected through several routes of which the two were comparatively shorter and more important. These connected the valley through the north-eastern mountain ranges after crossing

Burzil pass (Elev: 10,740 ft) and Zojila pass (Elev: 11,300 ft), Burzil pass connected Kashmir through Bandipur and Gurais with Astore, Chilas, Bunji, Gilgit, Chitral, Yasin Valleys in Darad country and further to Central Asian regions, China and Afghanistan. The route over Zojila pass links Kashmir with Ladakh, Baltistan, Nubra valley, Tibet and then the Central Asian regions of Badakhshan, Samarkand, Khotan, Bukhara, Kasghar etc. This route was a very important commercial highway.

The other routes which connected Kashmir with India and other parts of Punjab were through Pir Panjal pass (Elev: 11,400 ft), Banihal pass (9,200 ft), Budil pass (14,120 ft), Toshmaidan pass (14,000 ft) and Jhelum valley route which runs along the course of Jhelum river up to its confluence with Kishenganga river at Domel covering a distance of eighty miles.

These routes as well as the various passes over Pir Panjal range were of great importance for carrying trade and commerce with the outside world. Salt which was not available in the valley was a rare commodity and was imported from the neighbouring territories. The Pir Panjal route was the chief route by which salt was brought over here. This route in those days was named as *lavanasarani* or salt-road³⁸¹. The spices like black-pepper, ginger and asafoetida not grown in the valley were imported from outside. From China, fine clothes (*cinabara*), vermillion³⁸² and possibly tea were imported. One type of the imported cloth was the China silk which resembled like the rays of the moon. The author of Nilamata Purana could easily distinguish between the silk product of his native land and that of Kashmir³⁸³. The Kashmiris, according to Hieun Tsang, used three types of clothing namely Kauseya, different kinds of silk and muslin; Ksauma, a type of linen manufactured from flax and hemp and Kambala, woollen blankets and such other

type of warm clothes made from the wool of sheep, goats and other such animals³⁸⁴. Still silk clothings were not so popular in those days. The inhabitants lacked the knowledge of mulberry trees and rearing of silkworms on their leaves as according to Jahangir, Kashmir imported silk-worm eggs from Gilgit and Tibet³⁸⁵. But after that with favourable climate, resources, talent, industry and workmanship of the Kashmiris, the valley of Kashmir produced most attractive and beautiful varieties of silk which surpassed the excellence of Chinese silk even. At the moment, it is the most thriving government-controlled industry and means of livelihood of many people.

In the articles of perfumery, musk played an important part. The aristocratic ladies had a weakness for it as they used to get their cheeks scented with the leaves soaked in musk rose water³⁸⁶. The best musk came from Tibet where the musk-deer could graze upon grasslands rich in spikenard, an aromatic oil. Chinese musk could not compare with it but was less expensive and had a great market³⁸⁷. During the period, Kashmir had closer contacts with these two countries especially in 8th Century because of Lalitaditya's efforts. This type of sweet-scent seems to have a good demand in the valley depending upon the position of users in the society.

Conclusion

The routes which no doubt remained hazardous were safely treaded because of the favourable climatic conditions. There were no frequent land-slides or road-blockades. This gave a good opportunity to foreign merchants to come over here with goods not available here. Within the valley, the trade was carried on through road and river Jhelum. In this way large scale internal and external trade was the important factor behind the

prosperity of traders. Economically, there was a great diversity of occupation leading to specialisation and rise of merchants. Right from the middle of Seventh Century, in the reign of King Durlabhaka-Pratapaditya II, numerous merchants thronged the valley from different lands. They acquired enormous riches, built palaces, lived luxurious lives full of comforts and facilities which were not available even in royal palaces. The king when invited by a merchant, Nona by name, at his residence was surprised to see at night lamps formed of jewels when in his own palace he had ordinary lamps which spread smoke. He being from the land of *Rouhita* (possibly modern Rohtak town), built a *matha* for the accommodation of Brahmans hailing from his native land. These merchants from varieties of nationalities were the most powerful and wealthy elements of the society. It demonstrates the regular intercourse with the outside world.

The State guarded the passes of these trade routes by establishing watch-stations with whom both civil and defence officials were associated. On the civil side there were custom officers who collected the custom duties from the merchants and on the defence side, there were police personnel responsible for their defence and for the safety of the merchandise. The articles of export and import were duly registered at these watch-stations (*Drangas*). Sura, the minister of King Avantivarman (855/6-883) transferred the watch-station of *Kramavarta* from a desolate area on Pir Panjal route to an open, plain and well-guarded locality of Surapura (modern Hirpur) in the valley of Rembyar stream, district Pulwama. Ancient coins have frequently been found here which indicate the commercial importance of these watch-stations. It is now quite clear that sufficiently active and regular trade and commerce promoted the flow of money on regular basis.

The other sources of the income were treasure droves, deposits, mines, the sale of wood from forests, duty on woollen clothes and sale of cattle. A hoard of officers, officials and watch and ward officials were recruited if and when the scope of taxation widened. On the whole, all these elements in whatever position they were stationed contributed to the upkeep of settlements and maintenance of a fairly good style of living, which pattern continued through the centuries with a little change. With such varied range of activities, the settlement pattern by 1000 B.P. represented a highly organised and a sophisticated complex society. It progressed by rapid stages from a simple barbarous society of palaeolithic periods to a more affluent stage of increasing size and magnificence. The mild, temperate and healthy climate for longer duration against icy or dusty winds or suffocating heat accelerated the growth, expansion of settlements, and a diversified and wide subsistence pattern. All this exercised a powerful attraction for the valley and many races and tribes came, mingled and were absorbed in the main stream of the cultural life which is known as a symbol of universal brotherhood.

Notes And References

1. Farooq A. Lone, Maqsoda Khan and G.M. Buth, Five thousand years of Vegetational changes in Kashmir—The Impact of Biotic Factor in *Palaeoclimatic Palaeoenvironmental Changes in Asia During the last 4 Million Years*, Indian National Academy, New Delhi, 1988, p. 165.
2. D.P. Agrawal, *Man and Environment in India Through Ages*, Books and Books, New Delhi, 1992, p. 265.
3. Percy Brown, *Indian Architecture (Buddhist and Hindu)*, D.B. Taraporevala Sons and Co. Pvt. Ltd., Bombay, 1959, p. 155.
4. Vishnu-Mittre & B.D. Sharma, 'Studies of Post-glacial Vegetation History from the Kashmir Valley Haigam Lake' *Palaeobotanist*, Vol. 15(2), 1966, pp. 185-212.
5. B.N. Pandit, *Aspect of Kashmir Shaivism*, Srinagar, Kashmir, p. 11.
6. RT I, 177-184.
7. *Ibid* I, 310-11.
8. R.C. Mujamdar & A.D. Pusalker, *The Struggle for Power*, Bhartiya Vidya Bhawan, Bombay, 1957, p. 400.
9. NP 684-689.
10. RT III. 4.
11. JBBRAS 1861, p. 223.
12. R.C. Mujamdar & A.D. Pusalker, *The Classical Age*, Bhartiya Vidya Bhawan, Bombay, 1954, p. 312.
13. M.A. Stein, RT, (tr) III, 125 (note).
14. S. Beal, *Si-Yu-Ki, Buddhist Records of the Western World*, Vol. II, 1970, p. 261.
15. S.C. Ray, *Early History and Culture of Kashmir*, New Delhi, 1969. p. 235.
16. M.A. Stein, *Op. cit*, Vol. II, p. 319.
17. U.N. Ghoshal, *Studies in Indian History and Culture*, Orient Longman's, Bombay, 1957, p. 160.
18. NP 90.

19. *Mahabharat* 1, 35, 1350.
20. J.Ph. Vogel, *Indian Serpent Lore*, London, 1976, p. 255.
21. R.C. Muzumdar et. al, *Op. cit.*, p. 132.
22. S.C. Ray, *Op. cit.*, pp. 55-56.
23. A. Cunningham, *Coins of Medieval India*, Indological Book House, Varanasi, 1967, pp. 38 and 43.
24. *RT* IV, 2, 5 and 6.
25. S. Beal *Op. cit.*, p. 136.
26. A. Cunningham, *Op. cit.*, p.44.
27. M.S. Kaul, *Report on Excavations at Tapar, Srinagar*, 1943.
28. *RT*. IV, 55-105.
29. *Ibid*, IV. 144.
30. H. Goetz, *The Conquest of Western India by Lalitaditya Muktapida of Kashmir*, *JBBRAS*, 1951, pp. 46-47.
31. *JASB* (Numismatic Supplement), X, pp. 30-32.
32. S.C. Ray, *Op. cit.*, p. 239.
33. A. Cunningham, *Op. cit.*, p. 40.
34. *RT*, IV, 332.
35. A. Cunningham, *Ancient Geography of India*, London, 1871, p. 480.
36. *RT* IV, 495, 497.
37. *JNSI* X, p. 37, Pl.X, Fig. 8.
38. *RT*, IV, 694.
39. Frederic Drew, *Jammu and Kashmir Territories* New Delhi, 1976, p. 163.
40. D.K. Bhat, *A Review of the Stratigraphy of the Karewa Group (Pliocene-Quaternary)*, Kashmir, in *ME*, Pune, 1967, (Vol. VI), p. 48.
41. M.A. Stein, *RT* (tr.) V. 151-152 (note).
42. Percy Brown, *Op. cit.*, p. 164.
43. S.L. Shali, *Kashmir History and Archaeology through the Ages*, New Delhi, 1993, p. 172.
44. R.C. Kak, *Ancient Monuments of Kashmir*, New Delhi, 1971, p. 150.

45. B.M. Pande & G.S. Gaur, Temples in Water, *HindustanTimes, Sunday Magazine*, May 18, 1986.
46. M.A. Stein, *Op. cit.*, V. 253-55.
47. *Ibid* and R.C. Mujamdar, V. 229-444. *Ancient India*, Moti Lal Banarasi-Dass, Delhi, 1960, pp. 357-358.
48. A. Cunningham, *Op. cit.*, p. 45.
49. M.A. Stein, *Op. cit.*, VI, 177-78 (note).
50. R.K. Parimoo, *A History of Muslim Rule in Kashmir*, Delhi, 1969, p. 63.
51. Kshemendra, *Lokaprakasha*, (ed.) Z.D. Zadoo, Srinagar, 1947, IV, p. 58.
52. M.A. Stein, *Op. cit.*, VI. 313.
53. *Ibid*, IV, 360-61.
54. M.L. Kapoor, *Studies in History and Culture of Kashmir*, Jammu, 1967, pp. 39-40.
55. RT, IV.5.187, 190.V.23-24, 48-52, 170, 403, 442, VI.89, 306.
56. Bilhana, *Vikramankadevacarita*, XVIII, 24.15.
57. RT, V, 1170.
58. *Ibid*, V, 109.
59. NP, B11-12 and 821.
60. *Ibid*, 786-789.
61. Alberuni, (tr. and notes by Dr. Edward, C. Sachan under title of *India*), Vol. II, London, 1914, p. 102.
62. RT, VI, 190-192.
63. *Ibid.*, VI, 175.
64. Fredric Drew, *Op. cit.*, pp. 263 and 433.
65. F.M. Hassnain, *The Brukpa Dards of Dah, Hanu and Garkon (in Ladakh), Life and Culture* (ed.) K.N. Pandita, Srinagar, 1956, p. 28.
66. RT, V, 282.
67. NP, 838.
68. RT, IV, 553-359.
69. NP 655-658.

70. M.L. Kapoor, *The Kingdom of Kashmir*, Jammu 1983, p. 242.
71. P.N. Bazaz, *Daughter of Vitasta*, Pamposh Publications, New Delhi, 1959, p. 114.
72. RT, VI, 12.
73. D.N. Pandit, *Aspect of Kashmir Shaivism*, Srinagar, p. 78.
74. Bilhana, *Op. cit.*, XVIII, 6.
75. Damodargupta, *Kuttanimata Kayyas* (ed.) M.S. Kaul, JRASB, Calcutta, 1944, verses, 222-24 and 351.
76. V.N. Drabu, *Kashmir Polity*, Bahri Publications Private Ltd, New Delhi, 1986, pp. 50-51.
77. RT, IV, 485.
78. *Ibid*, V, 230, 249, 251-53, 296, 387-92.
79. *Ibid*, IV, 265-274.
80. Alberuni, *Op. cit.*, Vol. II, p. 157.
81. RT, IV, 483.
82. *Ibid*, IV, 496.
83. *Ibid*, IV, 424 and 431.
84. *Ibid.*, III, 500 and 528.
85. *Ibid.*, IV, 396.
86. *Ibid.*, IV, 434-36 and 467.
87. *Ibid.*, IV, 661 and 667.
88. *Ibid.*, IV, 677.
89. *Ibid.*, V, 281 and 285.
90. *Ibid.*, V, 387.
91. *Ibid.*, VI, 77.
92. *Ibid.*, VI, 163-167.
93. *Ibid.*, VI, 321-22 and 333.
94. *Ibid.*, VI, 295-296.
95. *Ibid.*, V, 216-226.
96. *Ibid.*, VI, 107.
97. *Ibid.*, VI, 195-196.

98. Jan Yun Hua, 'Hui Chao's Records on Kashmir' in *Kashmir Research Biannual* No. 2, 1962, pp. 119-120.
99. RT, III, 501-505.
100. *Ibid.*, III, 513.
101. *Ibid.*, III, 514.
102. Kanamendra, *Samavamatika*, II.
103. *Ibid.*, *Caturvarga-Samgraha*, (ed.) Kavya-malla, Chapter III,
104. RT, VII, 213.
105. Kshemendra, *Nitikalpataru*, p. 34.
106. Somadeva, *Kathasaritsagara*, (ed.) Durga Prasad and Parab) Bombay, 1899, Ch.VI, 34. pp. 312-13 and 204.
107. RT, V, 420, VI, 115 and 180.
108. *Ibid.*, II, 65 and 152.
109. *Ibid.*, IV, 137-142.
110. *Ibid.*, IV, 391.
111. *Ibid.*, IV, 319.
112. *Ibid.*, IV, 469 and 585.
113. *Ibid.*, V, 37 and 43.
114. *Ibid.*, V, 84-112.
115. *Ibid.*, VI, 116-117.
116. *Ibid.*, VI, 260-61.
117. *Ibid.*, VI, 353-54.
118. Kshemendra, , *Narmamala KSTS*, Poona, 1923, 1.1 and *Lokaprakasha* pp, 77-78.
119. M.A. Stein, RT (ed). Vol. II, p. 436.
120. R.K. Parimoo, *Op. cit.*, p. 390.
121. Kshemendra, *Lokaprakasha* p. 60.
122. *Ain-I-Akbari*, Vol. II, p. 368.
123. *Ibid.*, pp. 361-71.
124. Major C.E. Dates, *A Gazetteer of Kashmir and the Adjoining Districts of Kishtwar, Badarwah, Jammu, Naoshera, Punch and the Valley of Kishenganga*, Calutta, 1873, pp. 2-4.
125. Kshemendra, *Op. cit.*, pp. 77-78.

126. *RT*, IV, 344-352.
127. V.N. Drabu, *Op. cit.*, p. 74.
128. *Ibid.*, V, 175.
129. *Ibid.*, V, 180.
130. *Ibid.*, V, 176-177.
131. Kshemendra *Narmamala*, I, 35, 37.
132. *Ibid.*, I, 62-85 and 97-127.
133. *RT*, V, 301 and 304.
134. John Marshall, *Note on Archaeological Tour in Kashmir*, Simla, 1922, pp. 18-20.
135. Kshemendra, *Op. cit.*, I, 302-303, 137-144.
136. *Ibid.*, IV, 147 sqq.
137. Rajanka Ratnakara, *Haravijaya Kavya Kayyamala*, 22, Bombay, 1890, XXXI, 30.
138. Kshemendra, *Nitikalpataru*, 48-49 and 98.
139. *RT*, IV, 165.
140. *Ibid.*, V, 143-144.
141. Kshemendra, *Lokaprakasha*, IV, p. 59.
142. *RT*, III, 489.
143. *Ibid.*, IV, 407, V, 219.
144. Samul Beal, *The Life of Hieun Tsang* (tr.), London, 1888, Vol. II, p. 139.
145. *RT*, IV, 475-476, V, 218-19, 248-49, 289, 342-46, 411, 424-25, 448-49, VI, 91, 132.
146. *Ibid.* VI, 170.
147. Kshemendra, *Op. cit.*, IV, p. 59, VIII 2420-21.
148. *RT*, III, 227-28, IV, 404-407, V, 137.
149. Kshemendra, *Narma-mala* 2, 144.
150. *RT*, VI, 179.
151. *Ibid.*, IV, B1 VI, 296.
152. Damodharagupta and Somadeva, *Op. cit.*, 400 *Op. cit.*, VII, 167-168.
153. *RT*, VI, 70.

154. *Ibid.*, VI, 318-320 and 333.
155. Ranjit Sitaram Pandit, *RT (Tr.) Sahitya Akademi*, New Delhi, 1977, pp. 22-23.
156. *RT*, IV, 140-142, 711, VI, 320.
157. *Ibid.*, VI, 117 and 261.
158. *Ibid.*, VI, 588-589.
159. *Ibid.*, VI, 14 and 336.
160. *Ibid.*, IV, 632.
161. R.S. Pandit, *Op. cit.*, p. 723.
162. *RT*, IV, 495.
163. *Ibid.*, V, 32-33.
164. *Ibid.*, IV, 140.
165. *Ibid.*, V, 177.
166. *Lokaprakasha* p. 4.
167. D.C. Sircar, *Indian Epigraphical Glossary*, Delhi, 1966, p. 330.
168. *RT*, IV, 55-74.
169. *NP*, 684-689.
170. *RT*, I, 38.
171. *Ibid.*, I, 107.
172. *Ibid.*, I, 113.
173. *NP*, 1049 Sq.
174. A. Cunningham, *op. cit.*, pp. 26-27.
175. *RT* II, 129 and 133.
176. *Ibid.*, III, 350.
177. *Ibid.*, IV, 189-190.
178. *Ibid.*, IV, 38.
179. *Ibid.*, IV, 209 and 214.
180. *Ibid.*, IV, 513.
181. *Ibid.*, V, 45-46, 48.
182. *Ibid.*, V, 37.
183. *Ibid.*, V, 40.
184. *Ibid.*, V, 158.

185. *Ibid.*, V, 163.
186. *Ibid.*, V, 404.
187. R.S. Pandit, *Op. cit.*, I, 17-18 (note).
188. N.B. Utgikar, *Vaishnavism, Shaivism and Minor Religious Systems*, Vol. IV, Sake, 1929, pp. 166, 182-183.
189. K.C. Pande, *Abhinavagupta, an Historical and Philosophical Study*, Benares, 1936.
190. Suresh Chander Banerjee, *Cultural Heritage of Kashmir*, Sanskrit Pustak Bhandar, Calcutta, 1965, pp. 46-47.
191. *RT*, VI, 173 and 173.
192. P.N.K. Bamzai, History of Vaishnavism and Krishna Cult in Kashmir in *Journal of the Oriental Institute*, Vol. XXX, 1980-81, p. 21.4.
193. *RT*, III, 350-351.
194. *Ibid.*, III, 453-351.
195. S.C. Ray. 'Studies on the History of Religion in Ancient Kashmir' in *Journal of the Bihar Research Society*, Vol, XLI (III), 1995, p. 189.
196. *RT*, III, 383.
197. M.A. Stein, *RT*, (Tr.) Vol. II, p. 369 (note.)
198. A. Cunningham, *Op. cit.*, p. 40.
199. *RT*, IV, 4, 6, 79, 80 and 81.
200. *Ibid.*, IV, 181.
201. *Ibid.*, IV, 183, 188, 193, 194, 195-199, 208-09 275-76, VII, 1310.
202. R.C. Kak, *Op. cit.*, p. 133.
203. *RT*, IV, 508.
204. *Ibid.*, IV, 693-98.
205. Daya Ram Sahni, 'Excavations at Avantipura' *Annual Report*, ASI, 1913-14, Calcutta, 1917, pp. 40-62.
206. *RT*, V, 23, 25, 28 and 30.
207. M.A. Stein, *Op. cit.*, pp. Vol. II, 329 and 334.
208. *RT*, V, 244-45, 267-68.
209. *Ibid.*, VI, 140-142.

210. *Ibid.*, VI, 168-69, 178, 299, 300, 302 and 304.
211. P. Paul, 'A Brahmanical triad from Kashmir and some related icons' in *Archives of Asian Art*, New York, Vol. 27, 1973-74, pp. 33-45.
212. IAS, A Review 1976-77, p. 75.
213. P. Paul, *Op. cit.*, Vol. 29, 1975-76, pp. 96-97.
214. RT, I, 29.
215. R.C. Kak, *Handbook of the Archaeological and Numismatic sections of the S.P.S. Museum, Srinagar, Calcutta and Simla*, 1923, p. 53.
216. RT, V, 37.
217. Debala Mitra, *Pandathan, Avantipur and Matrand*, ASI, New Delhi, 1977, pp. 69-70.
218. R.C. Mujaṃdar & A.D. Pusalker, *The Classical Age*, Bharatiya Vidya Bhavan, Bombay, 1954, pp. 419-20.
219. B.L. Malla, *Sculptures of Kashmir*, Agam Kala Prakashan, Delhi, 1990, p. 52.
220. R.C. Kak, *Op. cit.*, p. 58.
221. RT, III, 353.
222. Daya Ram Sahni, *Op. cit.*,
223. RT, V, 425-26.
224. Daya Ram Sahni, *Op. cit.*,
225. RT, I.122, 335, 348, III, 99, V, 55.
226. R.D. Trivedi, 'A Group of Matrikas from Kashmir and some Related Problems', in the *Journal of the Oriental Institute*, Baroda, Vol. 31, 1981-82, p. 387.
227. NP, vv, 228-34.
228. B.L. Malla, *Op. cit.*, p. 54.
229. *Ibid*, *Op. cit.*, Plate 18,
230. M.L. Kukiloo, 'Lord Amriteshvara Bhairava' in *Koshur Samachar*, Vol. XXXIX, No. 2, February, 1995, p. 25.
231. K.S.T.S Syachanda *Tantram* with commentary by Kshemaraja. (A Descriptive Analysis), p. 35.
232. *Ibid.*, p. 34.
233. Prem Nath Sadhu, *Shivamahimnastrotam*, [ed] very popular prayer songs in honour of Lord Shiva, (tr. with notes,

- historical facts in Hindi) Chalida press, New Delhi, 1990, pp. 91-94.
234. Abul Fazal, *Ain-i-Akbari* (English tr. by Col. H.S. Jarret), Vol, II, Calcutta, 1868-94, p. 356.
 235. P.Paul, *Op. cit.*,
 236. Susan L. Huntington, *Kashmir and Related Schools in Ancient India 'Buddhist, Hindu, Jain'*, Weather Hill, New York/Japan, 1985, p. 367.
 237. *NP*, vv, 698-700.
 238. *Chandogya Upanishhad*, VII, 26.2.
 239. M.A. Stein, *Op. cit.*, p. 340.
 240. *NP*, vv, 647-49.
 241. R.C. Kak, *Op. cit.*, p. 53.
 242. Susan. L. Huntington, *Op. cit.*, p. 357.
 243. S.L. Shali, *Op. cit.*, pp. 71 and 73.
 244. *RT*, III, 462.
 245. *Ibid.*, IV, 187 and 192.
 246. B.L. Malla, *Op. cit.*, p. 72. Fig. 29.
 247. W.R. Lawrence, *The Valley of Kashmir*, Kesar Publications, Srinagar, 1967 (Reprint), p. 43.
 248. M.A. Stein, *Op. cit.*, p. 484-85.
 249. Debala Mitra, *Op. cit.*, p. 61.
 250. (Prof) S.L.Pandit, 'Kashmir as they saw her' in *Koshur Samachar Annual Number, Cultural Heritage*, Dec. 1981, New Delhi, p. 69.
 251. *RT*, IV, 323-325.
 252. Abul Fazl, *Op. cit.*, p. 365.
 253. B.K. Kaul (Deambi), *Corpus of Sharada Inscriptions of Kashmir*, Delhi, 1982, p. 16.
 254. R.C. Kak, *Op. cit.*, pp. 22-39.
 255. *RT*, IV.3, 194, 203, 204, 211, 213, 216, 259-62, 507.
 256. *NP*, vv, 684-90.
 257. H. Goetz, *A Masterpiece of Kashmir Metal Art, King Shamkarvarman's for an image of Buddha Avtara in the*

- Srinagar Museum in *Journal of the Asiatic Society*, Letters, Vol. XIX No. 1, 1953. p. 46.
258. K. Mohan, *Early Medieval History of Kashmir*, New Delhi, 1981, p. 276.
259. RT, VI, 171-173.
260. *Ibid*, VI, 300.
261. B.K. Kaul (Deambi), *Op. cit.*, p. 97.
262. Susan L. Huntington and P. Paul, *Op. cit.*, p. 370. 'Bronzes of Kashmir : their sources and influences' *Journal of the Royal Society for the encouragement of Manufactures and Commerce* (XXXI), No. 5207, Oct. 1973, pp. 276-49.
263. Kshemendra, *Dashavtarcarita*, IX.
264. IAS—A Review, 1980-81, p. 21.
265. D.P. Agrawal, *Op. cit.*, pp. 216-17.
266. R.C. Kak, *Op. cit.*, p. 3.
267. C.L. Fabri, 'Buddhist Baroque in Kashmir', in *Asia*, October, 1939.
268. IAS—A Review, 1977-78, p. 79.
269. John Siudmake, 'Early Stone and Terracotta Sculptures' in *Marg*, Vol. XI, No. 2, 1989, pp. 54-55.
270. P.G. Paul, *Early Sculptures of Kashmir*, Leiden, 1986, p. 110.
271. R.C. Kak, *Op. cit.*, pp. 39-40.
272. S.L. Huntington and R.C. Sharma, *Op. cit.*, p. 357.
Buddhist Art of Mathura, New Delhi, 1984, p. 168.
273. Jaya Goswami, *Cultural History of Ancient India*, Agam Kala Prakashan, Delhi, 1979, p. 53.
274. R.C. Kak, *Op. cit.*, pp. 58-63.
275. D.L. Malla, *Op. cit.*, p. 65. Fig. 4.
276. P. Paul, *Bronzes of Kashmir*, New Delhi, 1975, p. 123, pl. 39.
277. KSTS, *Vijnana Bharirava*, Nos. 8 and 9, pp. 14 and 15.
278. RT, III, 99.
279. D.L. Malla, *Op. cit.*, p. 67. Fig. 9.

280. J.C. Chatterjee, *Kashmir Shaivism, R and P, Srinagar, 1962* (Reprint), pp. 13 and 14.
281. P. Paul, *Op. cit.*, p. 58.
282. *Ibid.*, pp. 50-186.
283. *RT*, IV, 259-262.
284. R.C. Kak, *Op. cit.*, pp. 41-46.
285. Susan L. Huntington, *Op. cit.*, 362. Fig. 17, 11.
286. R.C. Kak, *Op. cit.*, p. 68, 70-71.
287. P. Paul, *Op. cit.*, p. 146, Fig. 51 ab.
288. M.S. Kaul, *Excavation Report 'Archaeology Dept. J & K, dated 13.3' 1945.*
289. H. Goetz, *Op. cit.*, XIX, No. 1, 1953, pp. 48-50 also see. P. Paul's *Bronzes of Kashmir*, p. 70, Pls. II. abc.
290. *ASI—A Review 1969-70*, p. 13.
291. D.R. Sahni, *Op. cit.*
292. Kumari Ved Gai, *NP—A Cultural and Literary Study, Vol : 1, JKAACL, Srinagar, 1988, (2nd ed.)*, p. 129.
293. Jonaraja, *Dvitiya Rajatarangini*, Calcutta, 1835, V, 884.
294. S.C. Ray, *Early History and Culture of Kashmir*, New Delhi, 1970, pp. 239-40.
295. *RT* VI, 45 and 102-103.
296. W.R. Lawrence, *Op. cit.*, p. 243.
297. M.A. Stein, *Op. cit.*, p. 328.
298. Kumari Ved Gai, *Op. cit.*, pp. 114 and 175.
299. J.L. Bhan, 'Iconographic Interaction between Kashmir and Central Asia in *Kashmir and Central Asia*' ed. Dr. B.K. Deambi), KU, Srinagar, 1989, p. 79.
300. Kumari Ved Gai, *Op. cit.*, pp. 114 and 115.
301. *Ibid.*,
302. Damodaragupta, *Kuttanimatta*, Kavyamala Series No. 3, p. 59.
303. *RT*, V, 162.
304. G.R. Santosh, *Hari Parbat—A Decoding the Abstract in Shiraza JKAACL, Srinagar, 1987*, p. 3.

305. Krishna Deva, *Temples of India*, Vol. I (text), Aryan Books International, New Delhi, 1995, pp. 1 and 2.
306. *Epigraphica Indica*, Vol. IX, 1981, pp. 300-301.
307. RT, I, 38.
308. Krishna Deva, *Op. cit.*, p. 223.
309. Prasadamanadanam, *KSTS*, (ed.) J.D. Zadoo, 1947.
310. RT, I, 341.
311. W.R. Lawrence, *Op.cit.*, pp. 176-77.
312. R.C. Kak, *Ancient Monuments of Kashmir*, New Delhi, 1971, (Reprint) , p. 76.
313. M.S. Kaul, *Excavations at Tapar—A Report ARM*, Srinagar, 1942-43.
314. S.C. Ray, *Op. cit.*, p. 55.
315. H.H. Cole, *Illustrations of Ancient Buildings in Kashmir*, London, 1869, p. 27.
316. S.C. Ray, *Op. cit.*, pp. 219-221.
317. R.C. Kak, *Op. cit.*, p. 135.
318. ASI—A Review, 1969-70, p. 13.
319. Debala Mitra, *Op. cit.*, pp. 16 and 17.
320. RT, IV, 3 and 6.
321. S.L. Shali, *Op. cit.*, pp. 149-150.
322. Manohar Kaul, *Kashmir, Hindu, Buddhist and Muslim Architecture*, Sagar Publications, Janpath, New Delhi, 1971, p. 75.
323. M.S. Kaul, *Departmental Note on the Recent Activities, ARM His Highness's State of Jammu and Kashmir*, Srinagar, dated 13-2-1945.
324. ASI,—A Review 1969-70, p. 13.
325. M.S. Kaul, *Op. cit.*
326. P. Paul, *Op. cit.*, p. 82. Fig. 17.
327. S.L. Shali, *Op. cit.*, p. 171.
328. R.C. Kak, *Op. cit.*, p. 170.
329. T.N. Khazanchi, 'Archaeological Remains in Kashmir-VI' in *Koshur Samachar*, New Delhi, Feb, 1995, p. 37.

330. A. Cunningham, 'An Essay on the Arian Order of Architecture', *JASB*, Vol. XVII, part II, 1848, p. 283.
331. Earnest F. Neve, *Things seen in Kashmir*, London 1931, p. 89.
332. Percy Brown, *Indian Architecture (Buddhist and Hindu periods)*, Bombay 1959, p. 161.
333. Lokesh Chandra, *Cultural Horizon of India*, New Delhi, 1990, p. 143.
334. *RT*, I, 337.
335. *Ibid.* II, 16.
336. R.C. Mujambar et al. *Op. cit.*, pp. 295 and 312.
337. *RT* III, 260, 62.
338. M.S. Kaul, 'Report on Gilgit Excavations', in *Quarterly Journal of Mythic Society*, 30, 1939.
339. Sahibzada Hassan Shah, *A Descriptive Analysis of the KSTS RP*, Srinagar, p. 46.
340. *Epigraphica Indica*, Vol. XXX, pp. 226 ff.
341. Nalinaksha Dutt, *Gilgit Manuscripts* (ed.) Vol. 1, Srinagar, 1939, p. 34.
342. S.C. Ray, *Op. cit.*, p. 162.
343. *Ibid.*, p. 192.
344. Kshemendra, *Lokaprakasha*, p. 165.
345. *Ibid.*, p. 192.
346. Rekha Dodia, *Palynological Investigations of the Kashmir Valley, India* (un published Ph.D. Thesis). Ahmedabad, 1983, p. 3.
347. Kumari Ved Gai, *Op. cit.*, 126.
348. T.C. Champion and J.V.S. Megaw, *Settlement and Society*, Leicester, University Press, USA, 1985, p. 204.
349. *RT*, IV, 347.
350. *Ibid.*, IV, 70.
351. *NP*, V, 551 and 687.
352. *Ibid.*, vv, 517-18, 557-58, 861.
353. *RT*, IV, 194.
354. PNK Bamzai, *Culture and Political History of Kashmir (Ancient Kashmir)*, Vol. I, M.D. Publications, New

Delhi, 1994, p. 246.

355. RT, V, 175.

356. *Ibid.*, V, 176.

357. *Ibid.*, V, 168-169.

358. R.C. Kak, *Op. cit.*, pp. 149-50.

359. Percy Brown, *Op. cit.*, p. 161.

360. J.Ph. Vogel *Op. cit.*, p. 223.

361. It is the oldest text and is ascribed to sixth or seventh century of the Christian era when Buddha came to be represented as an incarnation of Vishnu. Its author is not known but it being the earliest Sanskrit literature of Kashmir valley and provides a detailed information on the origin of the land, early geography, topography, people, religious institutions, socio-economic conditions, internal dissensions among the kings of Kashmir etc.

362. Written by Damodargupta (c. mid-8th Century) in the Kavya style. It depicts a vivid description of social life of some sections of the society. The Kavya is blended with satiric and didactic elements.

363. It is authored by the famous Kashmiri scholar, Kshemendra (990-1065 A.D.). Dealing with the moral delinquency of the contemporary society of Kashmir, it is an original poem and is considered an important satirical work in Sanskrit.

364. Kumari Ved Gai, *Op. cit.*, p. 113.

365. S.C. Ray, *Op. cit.*, p. 253.

366. S. Beal, *Si-Yu-Ki* (Buddhist Records of Western World), New Delhi, Vol. I, 1970, p. 148.

367. RT, V, 356.

368. Kumari Ved Gai, *Op. cit.*, p. 117.

369. Krishna Deva, *Op. cit.*, pp. 1-3.

370. Suresh Chander Banerjee, *Op. cit.*, p. 64.

371. RT, VII, 944-49.

372. Kumari Ved Gai, *Op. cit.*, p. 109.

373. *Ibid.*, pp. 110-111.

374. Damodaragupta, *Kuttanimata Kavva*, 739-40.
375. *NP*, vv, 465.
376. L. Boulnois, *The Silk Road*, London, 1966, pp. 153-4.
377. Edgar Knobloch, *Bavond the Oxus*, USA, 1972, p. 16.
378. Kshemendra, *Narmamala-I*, 127.
379. S.C. Ray, *Op. cit.*, p. 136 and 251.
380. Kumari Ved Gai, *Op. cit.*, p. 116.
381. H.C. Ray, *Op. cit.*, p.125.
382. A. Rogers And H. Beveridge, *Tuzuk-i-Jahingiri* (tra), Vol. II London, 1990-14, p. 146.
383. *Kshemendra, Samavamatrika*, VII.
384. L. Boulnois, *Op. cit.*, p. 192.
385. *RT*, IV,II-15.
386. *Ibid.*, III, 227.

Bibliography

- Abul Fazal; *Ain-i-Akbar* (English tr.), Vol.I (Blochman), Vol.II and III (Jarret), Bibliotheca India Series of the Asiatic Society Bengal, Calcutta.
- Vol. II, (tr) J.N. Sarkar, Asiatic Society, Calcutta, 1949.
- Agrawal, D.P. ; Cenozoic Climatic Changes in Kashmir: The Multi-disciplinary Data. in *Climate and Geology of Kashmir and Central Asia. The last four million years.* D.P. Agrawal, S. Kusumgar and R.V. Krishnamurthy (eds.) T and T Printers and Publishers, New Delhi, 1985.
- *Man and Environment through the Ages*, Books and Books, New Delhi, 1992.
- Agrawal, D.P.; Datta, P.S.; Kusumgar, S.; Mehrotra, N.C.; Nautiyal, V.; Pant, R.K.; and Shali, S.L.: Preliminary Sedimentological Studies on the Quaternary deposits of Kashmir, *Himalayan Geology*, Vol. 9, 1981.
- Agrawal, D.P.; and Dodia, R.; Kashmir: A key to Past Climate, *Science Age*, Vol. 3 (8), 1985.
- Ahmed, S. Maqbool ; *News Letters*, Centre of Central Asian Studies, K.U., Srinagar, 1982-3 and onwards.
- Central Asia and Western Himalayas, A Forgotten Link (ed), G.M. Buth, Jodhpur, 1986.
- Raja Bano, *Historical Geography of Kashmir*, New Delhi, 1984.
- Alberuni ; *India, Kitab-ul-Hind* under the title *Alberuni's India* (tr.) E.C. Sachau, 2 Vols. London, 1914.
- Archaeological Survey of India, (i) Ancient India ; (ii) Annual Reports and (iii) Archaeology—A Review Selected issues relevant to the subject.

- Archaeological, Research and Museum Department, Jammu and Kashmir Government, Annual Reports and Departmental Notes from 1904-5 onwards.
- Asthana, Shashi Prabha ; *History and Archaeology of India's contacts with other countries from earliest times to 300 B.C.* New Delhi, 1976.
- Atharvaveda* (ed.) R.Roth and W.D. Whitney, Berlin, 1856.
- Badam, G.L.; Note on the occurrence of fossil vertebrates in the Karewas of Kashmir; *Research Bulletin, Punjab University*, Vol. 19 (3-4), 1968.
- Additional mammalian fossils in the Karewas of Kashmir, *Current Science*, Vol. 41 (4), 1972.
- *Pleistocene Fauna of India*, Deccan College, Post-Graduate and Research Institute, Pune, India, Vol. I-XXXII, 1979.
- Bagchi, P.C. ; *India and China*, Calcutta, 1944.
- Bahraristan-i-shahi*, (Persian mss.), R and P Department, (ed.), Dr. K.N. Pandita, Calcutta, 1991.
- Bamzai, Anand Kaul ; *Geography of Jammu and Kashmir State*, Delhi, 1926.
- *Archaeological Remains in Kashmir*, Lahore, 1935.
- Bamzai, Prithvi Nath Kaul; *A History of Kashmir*, Delhi, 1962.
- *Kashmir and Central Asia*, New Delhi, 1980.
- History of Vaishnavism and Krishna cult in Kashmir, *Journal of the Oriental Institute*, Index Vol, XXX, 1980-81, Baroda.
- *Culture and Political History of Kashmir*, 3 Vols. M.D. Publications, New Delhi, 1994.
- Bandey, Azaz, A. ; Copper Coins from Harwan, *The Journal of Central Asian Studies*, K.U., Srinagar, Vol. III, 1993.

Banerjea, J.N. ; Mediaeval Vishnu images from Kashmir and some Vishnudharmottara passages, *Indian History Congress* (4th session), Lahore, 1940.

— *The Development of Hindu Iconography*, Calcutta, 1956.

Banerjee, N.R. ; *The Iron Age of India*, Delhi, 1965.

— Magalithic Problem in India, *Studies in Prehistory*, Robert Bruce Foote Memorial Volume (eds.) D. Sen and A.K. Ghosh, Calcutta, 1966.

— Comments on D.K. Chakrabarti's article 'The Issue of the Indian Iron Age', in *Recent Advances in Indian Archaeology, Seminar Proceedings* (eds.), S.B. Deo and K. Paddayya, Poona, 1985.

Banerjee, Suresh Chander; *Cultural History of Kashmir*, Sanskrit Pustak Bhandar, Calcutta, 1965.

Basu, Arbinda and A. Pal ; *Human Remains from Burzahom*, Calcutta, 1980.

Bates, Maj. C.E.; *A Gazetteer of Kashmir and the adjoining districts of Kishtwar, Badrawah, Jammu, Naoshera, Punch and the valley of Kishenganga*, Calcutta, 1873.

Bazaz, P.N.; *Daughters of Vitasta*, Pamposh Publications, New Delhi, 1959.

Beal, Samuel; *Life of Hieun Tsang by the Shamans Hwui-Li and Yen-Tsung* London, 1911.

— *Si-yu-ki, Buddhist Records of the Western World*, New Delhi, 1970.

Bhan, J.L.; *Tile—a Vital Link, Central Asia and Western Himalayas,—A Forgotten Link*, (ed.) G.M. Buth, Jodhpur, 1986.

— Manifestation of Vishnu—A critical study of eighth century Prabhavali from Devsar, *Indian Arts and Crafts*, (ed.) Prof. Rattan Parimoo, New Delhi, 1987.

— Beveridge, Iconographical Interaction between Kashmir and Central Asia, *Kashmir and Central Asia* (ed.) B.K. Kaul Deambi, K.U., Srinagar, 1989.

Bhandarkar, D.R.; *Ancient Indian Numismatics, Carmichel Lectures*, Calcutta, 1921.

Bhandarkar, R.G.; *Collected Works*, Vols. I-IV, Poona, 1927-33.

— *Vaishnavism, Shaivism and some minor Religious Systems*, Poona, 1928.

Bhat, D.K.; *Guide Book on the Karewas of Kashmir*, Srinagar, 1977.

— Stratigraphical Status of the Karewas Group of Kashmir, *Himalayan Geology*, Vol. 6, 1976.

— Geological Observation of the Margs of Kashmir Valley, India, *Himalayan Geology*, Vol. 8 (1), 1978.

— Lithostratigraphic sub-division of The Hirpur Formation (Lower Karewa), A critical review and modification, *Himalayan Geology*, Vol. 9 (1), 1979.

— A Review of the Stratigraphy of the Karewa Group (Pleistocene Quaternary), Kashmir, *Man and Environment*, Vol. VI, 1982.

Bilhana; *Vikramankadevacharita*, (ed.) G. Buehler, Bombay, 1875.

Bisht, R.S.; Reflection on Burzahom and Semthan Excavations and later Mythological periods in Kashmir Valley, *Central Asia and Western Himalayas—A Forgotten Link*, (ed.) G.M. Buth, Jodhpur, 1986.

Boulnois, L.; *The Silk Road*, Paris, 1966.

Bray Warwic and Davis Trump, *The Penguin Dictionary of Archaeology*, London, 1970.

Bridget and Raymond Allchin; *The Birth of Indian Civilization*, Penguin Books, England, 1986.

Brown Percy; *Indian Architecture (Buddhist and Hindu Period)*, Bombay, 1959 (4th edition).

Buhler, George ; Detailed Report of a Tour in search of Sanskrit Manuscripts made in Kashmir, Rajputana and Central Asia, *JBBRAS*, Extra Number, XII, Bombay, 1877.

- Buth, G.M., R.S. Bisht, and G.S. Gaur; Investigation of Palaeobotanical Remains from Semthan, Kashmir, *Man and Environment*, VI, 1982.
- and R.N. Kaw; Plant Husbandry in Neolithic Burzahom, *Climate and Geology of Kashmir and Central Asia...*, New Delhi, 1985.
 - Maqsood Khan and Farooq A. Lone ; Antiquity of Rice and its Introduction in Kashmir, *Central Asia and Western Himalayas—A Forgotten Link*, Jodhpur, 1986.
- Chadura, Haidar Malik ; *Tarikh-i-Kashmir* (Persian mss.), Research Publication Department, Srinagar.
- Chakrabharti, D.K.; The beginning of Iron in India, *Antiquity*, 50, 114-124.
- Study of Iron Age in India, *Puratattva*, 13-14, 1981-83, 81-85.
 - The Issues of Indian Iron Age, *Recent Advances in Indian Archaeology.....*, Poona, 1986.
- Champion, T.C. and Megaw J.V.S., *Settlement and Society*, Leicester University Press, USA, 1985.
- Chandogya Upanishad*, (ed.) O. Bohtlingk, Leipzig, 1889.
- Chandra, Lokesh, *Cultural Horizon of India*, New Delhi, 1990.
- Chang Kwang Chih, *The Archaeology of Ancient China*, New Haven, 1977.
- Chatterji, J.C.; A Note on the confluence of the Vitasta and the Sindhu, *Annual Report, Archaeology and Research Department*, Jammu and Kashmir Government, Srinagar, 1905.
- *Kashmir Shaivism*, Srinagar, 1914.
- Chattopadhyaya, Bhaskar; *Kushana State and Indian Society*, Calcutta, 1975.
- Childe, V. Gordon, Megaliths in Ancient India, *Ancient India*, No. 4.

Clark, Grahmme, *World Prehistory—An Outline*, London, 1960.

Cole, Henry Hardy ; *Illustrations of Ancient Buildings in Kashmir*, London, 1869.

Cornwall, I.W. ; *Prehistoric Animals and their Hunters*, London, 1968.

— *The World of Ancient Man*, London, 1964.

Cunningham (Maj. General), Alexander, *Ancient Coinage of Kashmir*, London, 1843.

— *Coins of Mediaeval India from the Seventh Century down to Muhammadan Conquest*, London, 1864.

— *Ancient Geography of Kashmir*, London, 1871.

— *An Essay on the Arian Order of Architecture as Described in the Temples of Kashmir*, *JASB*, 1848 (pt.II).

— *Coins of Indo-Scythians, Shakas and Kushanas*, Varanasi, 1971.

Dainelli, G. ; *Studi sul glaciale. sped ital de Fillippi, nel Himalaia, Caracorom, Turchestan, Cinese*, *Rec. Sci.* 1922.

Damodargupta, *Kuttanimata Kavya*, (ed.) M.S. Kaul, Royal Asiatic Society of Bengal, 1944.

Dani, A.H.; *Timargarh and Gandhara Grave Culture*, *Ancient Pakistan*, Number 3, University of Peshawar, Peshawar.

— *Excavation in the Gomal Valley*, *Ancient Pakistan*, No. 5, Peshawar.

Davis, R.S., Ranov, V.A., Dodonov, A.E.; *Early man in Soviet Central Asia*, *Scientific American*, Vol. 243 (6), 1980.

Deambi, B.K. Kaul; *Corpus of Sharada Inscriptions of Kashmir*, Delhi, 1982.

— *History and Culture of Ancient Gandhara and Western Himalayas*, New Delhi, 1985.

- Deo, S.B. ; *The Megaliths: Their Culture, Ecology, Economy and Technology, Recent Advances in Indian Archaeology, (Seminar Proceedings).....* Poona, 1985.
- Desai, Devagana ; *Erotic Sculptures of India*, New Delhi, 1985.
- Deshpande, M.N.; *Archaeological Sources and Reconstructing of the History of Science of India, Journal of History of Science, (Indian), Vol. VI. No.1, 1971.*
- Deterra, H. Paterson, T.T., *Studies on the Ice Age in India and Associated Human Cultures*, Carnegie Inst. Washington Pubn, Vol.493, 1939.
- Deva, Krishna, *Temples of India, Vol. I(Text)*, Aryan Book International, New Delhi, 1995.
- Didamari, Khwaja Muhammad (Azam), *Waqait-i-Kashmir* (Persian mas. R and P) K.U. (Urdu tr. by Munshi Ashraf Ali), Delhi, 1846.
- Dikshit, K.N., *The Neolithic Cultural Frontiers of Kashmir, Man and Environment, Vol. VI, 1982.*
- Dodia, Rekha, *Palynological Investigation of the Kashmir Valley*, (Ph.D. Thesis, un-published), Gujarat University, Ahmedabad, 1985.
- R. Gupta; H.P. Mandavia; C. Sharma; and Vora, A.B.; *Palynological investigations on the Lower Karewas, Kashmir, Man and Environment, Vol.6, 1982.*
- Agrawal, D.P.; and Vora, A.B.; *New Pollen data from the Kashmir Bog: A summary, Climate and Geology of Kashmir and Central Asia (eds). Agrawal, D.P., Kusumgar, S, Krishnamurthy, R.V., New Delhi, 1982.*
- Dodonoy, A.E., and Lomov, S.P., *Stratigraphy and Pedogenesis of Loess formation in Southern Tadjikistan, Climate and Geology of Kashmir and Central Asia,....*, New Delhi, 1985.
- Drabu, V.N.; *Kashmir Polity*, Bahri Publications Private Ltd, New Delhi, 1986.

- Drew, Frederick ; *The Jammu and Kashmir Territories*, Cosmo Publications, New Delhi, 1976.
- Dupree, Louis ; *Prehistoric Research in Afghanistan*, American Philosophical Society, Philadelphia, 1972.
- Dutt, Jogesh Chander ; *Kings of Kashmir*, (English tr. of (i) Jonaraja's *Dvitiya Rajatarangini*, (ii) Shrivara's *Jaina Rajatarangini*, and (iii) Prajyabhatta and Shuka's *Rajavalipataka*), 3 Vols, Calcutta, 1898.
- Dutt, Nalinaksha and Sharma, S.N., *Gilgit Manuscripts*, Vols. I, II, III, (ed). Calcutta, 1939.
- Dutt. Sukumar; *Buddhists in East Asia*, New Delhi, 1966.
- Erdtman, G. ; *An Introduction to Pollen Analysis*, Waltham, Mass, USA, 1943.
- Fabri, C.L. : *Buddhist Baroque in Kashmir*, Asia, October, 1939.
- Farooqi, L.A.; and Desai, R.N. Stratigraphy of Karewas, Kashmir, India, *Jour. Geo. Soc. Ind.* Vol. 15 (3) 1974.
- Fergusson, James ; *Histroy of Indian and Eastern Architecture*, 2 Vols. London, 1899.
- *Tree and Serpent Worship in Anc. India*, London, 1873.
- Fisher, Robert, E ; *The Enigma of Harwan, Art and Architecture of Ancient Kashmir*, *Marg*, Vol. XI, No. 2, Bombay, 1989.
- Foucher, A.; *Notes on Geography of Gandhara*, Calcutta, 1915.
- Francke, A.H.; *ASI*, A I, 1909-10.
- Gafurav, B.G.; *Kushana Civilization, Central Asia* (Proceedings of the International Conference on the History and Culture of Central Asia in Kushana periods), 2 Vols, Dushambe, 1974.
- Gratsvsky, E.A.; Masson, V.M. ; *Kushana Studies in USSR, Soviet Indology Series*, Calcutta, 1970.
- Gai, Ved Kumari ; *Nilamata Purana, A Cultural and Literary Study*, Vol. I, JKAACL, Srinagar, 1988.

- Ganhar, G.N. ; Kashmir's contribution in the propagation of Buddhism, *Research Biannual*, ARM, Srinagar.
- and Ganhar, P.N. ; *Buddhism in Kashmir and Ladakh*, New Delhi, 1956.
- Gardener, P.G.; *The Coins of the Greek and Scythic Kings of Bactria and India in the British Museum*, London, New Delhi, 1971.
- Gaur, G.S.; Semthan Excavations : A step towards bridging the gap between the Neolithic and Kushanas, *Essays in Archaeology and History in Memory of Shri A. Ghosh*, (eds.) B.M. Pande and B.D. Chattopadhyaya, 2 Vols. New Delhi, 1987.
- Gaur, R.C. ; Comments on D.K. Chakrabarti's article on the issue of the Indian Iron Age *Recent Advances in Indian Archaeology*, (eds.) S.B. Deo and K. Paddayya, Poona, 1985.
- Ghirshman, R.; *Begram-Resherches archaeologiques et Historique sur les Kouchans, Memories de la delegation archaeologique Francase en Afganistan*, XII, Rome, 1945.
- Ghosh, A. ; *An Encyclopaedia of Indian Archaeology*, Vol. I, New Delhi, 1989.
- *The City in Early Historical India*, Simla, 1973.
- Ghoshal, U.N. ; *Studies in Indian History and Culture*, Bombay, 1957.
- Godwin-Austen, H.H. : On the lacustrine or Karewa deposits of Kashmir, *Geol. Soc, London, Quart, Journ*, Vol. 15 pt. I, 1859.
- Notes on the Valley of Kashmir, *Royal Geol. Soc. Journ*, Vol. 31, 1861.
- On the post-tertiary and more recent deposits of Kashmir and the Upper Indus Valley, *Nature*, Vol. 22, 1980.

- Goetz, Hermann; *The Conquest of Western India by Lalitaditya Muktapada of Kashmir*, JBBRAS, 1951.
- The Masterpiece of Mediaeval Kashmir Metal Art, King Shamkarvarman's Frame for an image of Buddha Avtara (Srinagar) Museum, *Journ. Asiatic Soc*, 1953.
- The Mediaeval Sculptures of Kashmir, *Marg*, Vol. III, Bombay, 1955.
- Gordon, D.H., *The Prehistory of India*, Bombay, (2nd ed.), Bombay, 1960.
- Goswami, Jaya ; *Cultural History of Ancient India*, New Delhi, 1979.
- Grierson, George ; *Linguistic Survey of India*, Vol. VIII, Calcutta, 1922.
- *The Pishaca Languages of the North Western India*, Delhi, 1969.
- Grover, Satish ; *The Architecture of India*, New Delhi, 1980.
- Gupta, Bhabani Sen, Karakoram Highway, *The Hindustan Times*, New Delhi, June 18, 1986.
- Gupta, P.L., *Gangetic Valley Terracotta Art*, Varanasi, 1973.
- Gupta, S.P.; *Archaeology of Soviet Central Asia and Indian Border-lands*. Vol. II, New Delhi, 1979.
- *Kushan Sculptures from Sanghol*, vol. I, New Delhi, 1985.
- Gupta, S.K., Sharma, P., Juyal, N., Agrawal, D.P., Loess-Palaeosol Sequence in Kashmir : Correlation of Mineral Magnetic Stratigraphy with the Marine Climatic Records., *Jour. Quart. Sci*, Vol. 6 (1), 1991.
- Hadas, Moses, *Hellenistic Culture*, New Delhi, 1959.
- Halim Mohd. Abdul, Excavations at Sarai Khola, Pt. I and II, A.P., Nos. 7 and 8, Karachi, 1970-72.
- Hambly, Gravin, *Central Asia* (English edition), London, 1969.

Hanly, Asha ; Kists (Cists) in Kashmir, *Times of India, Magazine*, Dec. 2, 1979.

Hassanin, F.M. ; *Hindu Kashmir*, New Delhi, 1973.

— The Brukpas Darads of Dah, Hano and Garkhan, *Ladakh Life and Culture (Seminar Proceedings)*, (ed.) Dr. K.N. Pandita, K.U., Srinagar, 1986.

— and Makhdoomi, M.H.; Ancient Buddhist sites discovered at Hoinar, Lidroo, Mamal Forests (Yaren Yander, Gundernakh etc.), Pahalgam, *Press Note*, July 25, 1977.

— Buddhist Site at Soura (Srinagar), *Press Note*, Sept. 1980.

Homen, Janarthan, A. ; and Flayne Street Derret; The Quaternary Glacial Histroy of Kashmir, North-West Himalaya, *Field Report, KPCP*, (Unpublished).

Hopkins, E.W. ; *The Religions of Inida*, Boston, 1895, New Delhi, 1970.

Hora, S.L., On fossil fish remains from the Karewas of Kashmir, *Rec. GSI*, Vol. 72 (2), 1937.

Hua, Jan Yun, Hui Chao's Records on Kashmir, *Kashmir Research Biannual*, No, 2, Srinagar, 1962.

Huntington, Susan, L. ; *Ancient India (Buddhist, Hindu and Jain)*, New York/Japan, 1983.

Ingholt, H., *Gandharan Art in Pakistan*, New York, 1957.

Jain, K.C., *Prehistory and Proto-history of India*, New Delhi, 1930.

Jalali, J.L.K.; Kashmir and its people and their language, *Heritage of Kashmir*, (e.d), Prof. F.M. Hassanain, Srinagar, 1980.

James, E.O., *Prehistoric Religion*, London, 1957.

Jarriage, J.F. and Lechevallier, M. ; Excavations at Mehargarh, Baluchistan : Their Significance in the Prehistorical Context of the Indo-Pakistan Borderlands, *South Asian Archaeology* (1977), Naples 1979.

Jarriage, J.F.; Excavations at Mehargarh, Nai-Sharo, (ed.) Nadiem Ishan, H., PA, Karachi, 1986.

Jayadratha, *Haricharitchintamani*, Kavyamala Series, No. 61, Bombay, 1897.

Jayanta Bhatta, *Agamadambara* (written during the reign of king Shamkaravarman, (883-902 A.D.).

Jayaswal, K.P., *History of India*, Lahore, 1933.

Jhinger, Sarai ; *The Roots of World Religions*, New Delhi, 1982.

Joshi, J.P., and Bala, Madhu ; Manda, A Harrapan Site, *Harrapan Civilization*, (ed.), G.L. Possehel, New Delhi, 1982.

Joshi, R.V., Rajguru, S.N., Pappu, R.S., and Bopardikar. Quaternary Glaciation and Palaeolithic Sites in Liddar Valley, Jammu and Kashmir, *World Archaeology*, 5/3, 1976.

Kalina, Bhuslav ; *Antiquity*, Vol. XXX (P.98).

Kak, R.C., *Handbook of the Archaeological and Numismatic Sections of the S.P.S. Museum at Srinagar*, Calcutta, 1923.

— *Ancient Monuments of Kashmir*, New Delhi, (Reprint), 1971.

Kapoor, M.L.; *Studies in History and Culture of Kashmir*, Jammu 1976.

— *Kingdom of Kashmir*, Jammu, 1983.

Kasyap Samudra Gupta, Go to Shillong, Not Gaul for menhirs, *Indian Express*, New Delhi, Sep. 24, 1993.

Kaul, Advaidadini, *Buddhist Savants of Kashmir*, Delhi, 1987.

Kaul, Madhusudhan, *Excavation Report, Tapar*, Srinagar, 1945.

— *Departmental Excavation Report*, Srinagar, 1945.

— *Report on activities of Archaeological Department, His Highness's Government, Jammu and Kashmir*, Srinagar, Feb. 13, 1945.

— (ed.) *Tantraloka, Sri Svachhanda Tantram, Mrigendra Tantram, Para-Trimshika and other issues of the KSTS* (relevant to the subject).

- Kaul, Manohar.; *Kashmir : Hindu, Buddhist and Muslim Architecture*, Sagar Publications, New Delhi, 1971.
- Kaul, Pandit Narayan ; *Tarikh-i-Kashmir* (Persian mss.), R and P Deptt, K.U, Srinagar.
- Kaw, R.N., *The Neolithic Culture of Kashmir, Essays on Protohistory* (ed.) D.P. Agrawal and D.K. Chakrabarti, Delhi, 1970.
- Khazanchi, T.N.; *Chronological Chart of History of Kashmir*, *Marg*, Vol. 8 (2), March, 1955.
- Pit Dwellers of Burzahom, *The Illustrated Weekly of India*, Bombay, Sept. 5, 1976.
 - North-Western Neolithic Culture of India, *News letter* No. 7 and IAS, Simla, 1977.
 - 'Archaeological Remains in Kashmir, VI, *Koshur Samachar*, New Delhi, *Koshur Samachar*. New Delhi, Feb., 1995.
 - and Dikshit, K.N.; *The Grey ware Culture of Northern Pakistan, Kashmir and Punjab*, *Puratatva*, No. 9, 1980.
- Khuihami, Pir Ghulam Hassan ; *Tarikh-i-Hassan* (Persian mss.) R and P Department, K.U. Srinagar, Vol. I, edited by Shahibzada Hassan Shah, Srinagar, 1954; Vol. II, edited by Moulvi Mohd. Ibrahim, Srinagar, 1957 ; Vol. III by Ali Mohd. Noor Mohd., and Vol. IV by Prof. P.N. Pushup, Srinagar.
- Knoblock, Edgar, *Beyond the Oxus*, Great Britain, 1972.
- Kotlia, B.S., *Vertebrate fossils and the Palaeoenvironment of the Karewa intermontane basin, Kashmir, north-west India*, *Current Science*, Vol. 54 (2401985b.)
- *Vertebrate Palaeontology and Palaeoecology of the Karewa Group, Kashmir—A Biostratigraphical Study*, (Ph.D. Thesis, un-published), Punjab University, Chandigarh, 1984.

- Sahni, A. ; Agrawal, D.P.; and Pant, R.K. ; New evidence for the age of Karewa Sediments, Kashmir, *ME*, VI, 1982.
- Kohi, Philip, L. ; Franfort, H.P. and Gardin, J.C. ; *L'Asie Centrale Des Origines A'Age Due Fer*, (Central Asia - Palaeolithic beginning to the Iron Age, Paris, 1984.
- Konow, Sten., *Note on a Tour in Kashmir*, Delhi, 1908.
- Koul, D. ; Thermoluminescence Dating of Pottery from Burzahom archeaological site, *Indian Journal of Pure and Applied Physics*, Vol. 30, BARC, Srinagar, July, 1992 (pp. 356-358).
- Krishnamurthy, R.V., DeNiro, J. Michel ; and Pant, R.K. ; Isotope evidence for Pleistocene Climatic Changes in Kashmir, India, *Nature*, Vol. 298, No. 5875. August 12, 1982.
- Kshemendra, *Dasavataracarita*, (ed.) Durga Prasad and Parab, Bombay, 1891.
- *Deshopadesha and Narmanala*, (ed.) M.S. Kaul, KSTS, Srinagar, 1923.
- *Samayamatrika*, (ed.) Durga Prasad and Parab, Bombay, 1925.
- *Lokaprakasha*, (ed.) J.D. Zadoo, Srinagar, 1947.
- Kukiloo, M.L. ; Lord Amriteshvara Bhairava, *Koshur Samachar*, Vol. XXXIX No. 2, New Delhi, Feb. 1995.
- Kusumgar, Sheela *Geochronology of the Palaeoclimatic Events of the Late Cenozoic Period in the Kashmir Valley*, (Unpublished Ph.D. Thesis), Bombay University, 1980.
- Agrawal, D.P., and Krishnamurthy, R.V., Studies on the loessic deposits of the Kashmir valley and 14-C dating, *Radiocarbon*, Vol. 22 (3), 1980.
- and Agrawal , D.P., *Chronology of the Kashmir Loess, Climate and Geology of Kashmir and Central Asia.....*, New Delhi, 1985.

Lal, B.B., *Palaeoliths from the Beas and Banganga Valleys, Ancient India* No. 12, 1956.

Lawrence, W.R. *The Valley of Kashmir*, London, 1895.

Lodha, G.S. ; Sawhney, K.J.S. ; Razdan, H. ; Agrawal, D.P. and Juyal, N.; Characterisation of Loess - Palaeosol Sequence in Kashmir Valley using multi-element concentration data, *Palaeoclimate and Palaeoenvironmental Changes in Asia during the last 4 Million Years*, INSC, New Delhi, 1988.

Lommel, Andress, *Prehistoric and Primitive Men*, London, 1966.

Lone, F.A., Khan, M., Buth, G.M., Five thousand years of Vegetational changes in Kashmir, *Palaeoclimate and Palaeoenvironmental changes in Asia*..... New Delhi, 1988.

Lydekker, R.; Notes on the Geology of Kashmir, Kishtwar and Pagni, *GSI, Records*, II, 1878.

— The geology of the Kashmir and Chamba territories and the British districts of Khagon, *GSI, Mem*, Vol. 22, 1883.

Mahabharata, (ed). Siromani etc., Calcutta, 1834-39 ; Sukthankar and others, Poona, 1927-53.

Majumdar, R.C., *An Advanced History of India*, London, 1953.

Majumdar, R.C.; and Pusalkar, R.D.; *The Vedic Age*, BVB, London, 1951.

— *The Classical Age*, BVB, Bombay, 1954.

— *The Age of Imperial Kanuj*, BVB, Bombay, 1955.

— *The Struggle for Empire*, BVB, Bombay, 1957.

Malla, Bansilal, *Sculptures of Kashmir*, Agam Kala Prakashan Delhi, 1990.

Mankha, *Srikanthacarita*, Kavyamala 3, Nirnaya Sagar Press, Bombay, 1887.

- Marjoric, and Quennel, C.H.B. *Everyday Life in Prehistoric Times*, London, 1959.
- Marshall, John, *Notes on Archaeological Works in Kashmir*, 1908 and 1922.
- *Mohenjodaro and the Indus Civilization*, 3 Vols. London, 1931; (Reprint New Delhi), 1973.
 - *Guide to Taxila*, New Delhi, 1918.
 - *Taxila*, 3 Vol. Cambridge, 1951, New Delhi, 1975.
 - *The Buddhist Art of Gandhara*, New Delhi, 1980.
- Middlemiss, C.S.; Sections on the Pir Panjal and Sind Valley Kashmir, *GSI, Rec. Vol. 41*, 1911.
- Lignitic Coalfields in the Karewa formation of Kashmir Valley, *GSI, Rec; Vol. 55*, 1924.
- Mitra, Debala ; *Buddhist Monuments*, Calcutta, 1980.
- *Pandrethan, Avantipur and Martand*, New Delhi, 1977.
- Mitra, Vishnu ; On the Plio-Pleistocene Boundary in the North-West India, *Palaeobotanist*, 12 (3), 1964.
- and Sharma, B.D.; Studies of Post-glacial Vegetational History of Kashmir Valley, Haiqam Lake, *Palaeobotanist*, 15 (2), 1966.
- Mohan, K.; *Early Medieaval History of Kashmir*, New Delhi, 1981.
- Mukerjee, B.N., *The Kushana Genealogy*, Vol. I, Calcutta, 1967.
- Mukerjee, R.K.; *The Culture and Art of India*, London, 1959.
- Naseem, M. *The Neolithic Cultures of North-West Indo-Pakistan Sub-Continent*, New Delhi, 1982.
- Nautiyal, Vinod.; *Neolithic Cultures of Kashmir* (Ph.D. Thesis (unpublished), 1980.
- Nehru, Lohit.; *Origin of the Gandhara Style*, Bombay, 1989.
- Neve Earnest, F.; *Things seen in Kashmir*, London, 1931.

Nilamata Purana (ed). Kanji Lal, Lahore, 1924.

— K.S.J.M. De Vreese, Leiden, 1936.

— Ved Kumari Gai, JKAACL, Srinagar, 1973.

Oldenberg, H.; On the dates of ancient inscriptions and coins, *IA*, Vol. LX, 1881.

Oldhan, C.F. ; *Serpent Worship in India*, *JRAS*, 1891.

Oldham, R.D.; *A Manual of Geology of India*, Calcutta, 1893.

Ou-kong; *Account of Kashmir*, *JBBRAS*, 1961.

Pal, J.N. *Archaeology of Southern Uttarpradesh, Ceramic Industries of Northern Vindhyas*, Allahabad, 1986.

Pal, P.; *Bronzes of Kashmir: Their sources and influences JRSEA, Manufactures of Commerce*, CXXI, No. 5207, Oct. 1973.

— A Brahmanical Traid from Kashmir and some related Icons, *Archives of Asian Art*, New York, Vol. 27, 1973-74.

— *Bronzes of Kashmir*, New Delhi, 1975.

Pande, B.M.; *The Neolithic in Kashmir—New Discoveries, The Anthropologist*, XVII, 1 and 2; 1970.

— Neolithic Hunting Scene on a stone slab from Burzahom, Kashmir, *Asian Perspective*, XIV, 1971.

— A Neolithic Tectiform from Burzahom, District Srinagar, *Journal of the Anthropological Society*, 7 (2), 1972.

Pande, K.C.; *Abhinavagupta, a Historical and Philosophical Study*, Benares, 1936.

Pandit, B.N.; *Aspects of Kashmir Shaivism*, Srinagar.

Pandit, R.S.; *Rajatarangini, The Saga of the Kings of Kashmir*, Sahitya Akademi, New Delhi, 1935.

Pandit, S.L.; *Kashmir as they saw her, Koshur Samachar, Annual Number*, (Cultural Heritage) New Delhi.

- Pant, R.K.; *Microwear Studies on Burzahom Neolithic Tools, ME, Vol. III, 1969.*
- Pant, R.K.; Agrawal, D.P.; and Krishnamurthy, R.V. ; Scanning electron microscope and other studies on Karewa beds of Kashmir India, *Sem in the Study of Sediments, (ed.)* W.B. Whalley, Geoabstracts, 1978.
- Gaillard, Claire. ; Nautiyal, Vinod., Gaur, G.S., Shali, S.L.; Some Neo Lithic and Ceramic Industries from Kashmir, *ME, Vol. VI, 1982.*
- Parimoo, R.K.; *A History of Muslim Rule in Kashmir, Delhi, 1969.*
- Paul; P.G.; *Early Sculptures of Kashmir, Leiden, 1986.*
- Peterson, Kai.; *Prehistoric Life on Earth, London, 1963.*
- Piggot, Stuart., *Prehistoric India, England, 1952.*
- Puri, B.N.; *India under Kushanas, Bombay, 1965.*
- *Buddhism in Central Asia, New Delhi, 1987.*
- Rapson, E.J.; *Cambridge History of India, Cambridge, 1982.*
- Ratnakara, Rajanaka, *Hara-Vijayal, victory of Shiva over demon Andhaka).*
- Ranov, V.A.; *Foreword to Archaeology of Soviet Central Asia and Indian Borderlands, by Dr. S.P. Gupta, New Delhi, 1979.*
- *The Hissar Neolithic Culture of Soviet Central Asia, ME, Vol. VI, 1982.*
- Rawlinson, H.G.; *Indian Historical Studies, New Delhi, 1957.*
- Ray, Sunil Chandra; *Early History and Culture of Kashmir, New Delhi, 1969.*
- Rendell, H.M.; Townsend, P.D.; Thermoluminescence dating of Kashmir loess, *Palaeoclimatic and Palaeoenvironmental Changes in Kashmir, INSA, New Delhi, 1988.*
- Rene, Grouset, *In the Footsteps of Buddha, London, 1932.*
- Rigveda, (ed.) Vaidika Samsodhana Mandala, Poona, 1933.*

- Rogers, A.; and Beveridge, H.; *Tuzuk-i-Jahangiri* (tr.) Vol. II, London, 1909-14.
- Rowland, Benjman; *The Art and Architecture of India*, USA, 1953.
- Saar, S.S.; *Ancestors of Kashmir*, New Delhi, 1992.
- Sadhu, perm Nath.; *Shivamahimnastotram*, (ed. and tr. with notes in Hindi), New Delhi, 1990.
- Sahni, A.; Report on a small collection of Karewa vertebrates investigated in the KPCP, ME, Vol. 5, 1981.
- Sahni, A.; and Kotlia, B.S.; Micromammals from the Karewa Group of Kashmir, ME, Vol. VII, 1983.
- Sahni, Birbal.; The Karewas of Kashmir, *Current Science*, 5 (1) 1936.
- The Himalayan Uplift since the advent of man, *Current Science*, 5 (5), 1936.
- Sahni, Daya Ram; Excavations at Avantipura, AR, ASI, Calcutta, 1913-14.
- Pre-Muhamadan Monuments of Kashmir, AS, ASI 1915-16.
- Sankalia, H.D.; Early Man in Ice Age, Kashmir, *Science Today*, Bombay, 1952.
- Iranian Influence on early Indo-Pakistan Cultures, *Central Asia* (ed.) Amalendu Guha, ICCR, New Delhi, 1970.
- *Prehistory of India*, New Delhi, 1975.
- Prehistoric Colonization in India Archaeological and Literary evidence, *Puratattva*, No. 8, 1975-76.
- Sant, Urmilla; *Neolithic Settlement of North-Eastern and North India*, Delhi, 1990-91.
- Santosh, G.R.; Hari—Parbat-A Decoding the Abstract, *Shiraza*, JKAACL, Srinagar, 1987.
- Sarkar, H.; Some Aspects of the Megalithic Culture of India, *Puratattva*, No. 11, 1979-80.

Scoff, W.H.; *The Periplus of the Erythraean Sea*, New York, 1912.

Shali, S.L.; *Monastic Architecture of Ancient Site at Harwan, Das Alterum*, Berlin, 1984.

— Fascinating Remains in Darad Kot, *Kashmir Times*, Jammu, Nov. 27, 1989.

— Neolithic Culture of Kashmir with reference to Central Asia, *Central Asia and Western Himalayas—A forgotten link*, (ed.) G.M. Bugh, Scientific Publishers, Jodhpur, 1986.

— Neolithic Culture of Kashmir, New Discoveries and Parallels, *Shiraza*, JKAACL, Srinagar, 1987.

— *Kashmir : History and Archaeology through the Ages*, New Delhi, 1993.

Sharma, A.K.; Neolithic Human Burials from Burzahom, *Journal of Oriental Institute*, Baroda, 1967.

— Animal Burials from Burzahom—A Neolithic Settlement in Kashmir, *Journal of the Oriental Institute* (Nos. 1 and 2), Baroda, 1968.

— Prehistoric Exploration in Sikkim, *Puratattva*, No: 10, 1978-79.

— Excavations at Gufkral, *Puratattva*, No. 11, 1979-80.

Sharma, R.C.; *Buddhist Art at Mathura*, New Delhi, 1984.

Sharma, T.C.; *Prehistoric Archaeology of Assam*, (un-published Ph.D. thesis), London, 1966.

Shrava, Satya; *The Kushana Numismatics*, New Delhi, 1983.

Singh, Gurdip; A Preliminary Survey of the Post-glacial Vegetational History of Kashmir Valley, *Palaeobotanist*, 1963.

Singh, I.B.; Sedimentation Pattern in the Karewa Basin, Kashmir, India and its geological significance, *Jour, Palaeon. Soc. Ind* Vol.27, 1982.

Sircar, D.C.; *Indian Epigraphical Glossary*, Delhi, 1966.

Siudmake, John; *Early Stone and Terracotta Sculptures*, Marg, Vol. XI, No. 2, 1989.

Smith, V.A.; *The Early History of India*, Oxford, 1924.

— *Catalogue of Coins in the Indian Museum, Calcutta*, Vol. I, Varanasi, 1972.

Somadeva, *Kathasaritsagara*, (ed.) Durga Prasad and Parab, Bombay, 1899 and (tr.) C.H.Tawney, 10 Vol. London, 1924-28.

Somananda, *Shivadrishti* (with Utpala's Vritte), KSTS, No. LIV.

Stacul, Giorgio, *Excavations near Ghaligai (1968) and Chronological Sequence of Protohistorical Cultures in the Swat Valley (West Pakistan)*, *East and West*, Vol. 19, 44-91, Rome, 1969.

— *Excavations at Leobanr III (Swat, Pakistan)*, *East and West*, 26 (1-2), 13-30, Rome, 1976.

— *Dwelling and Storage Pits at Loebanr III (Swat, Pakistan)*, *East and West*, 27 : 227-53, Rome 1977.

— and Tusas,; *Report on the Excavations at Aligrama (Swat, Pakistan)* *East and West*, 25, 291-321, Rome, 1975.

— *Report on Excavations at Aligrama (Swat, Pakistan)* *East and West*, 27: 151-205, Rome, 1977.

Stein, M.A.; *Note on Ou-Kong's Account of Kashmir*, Wien, 1896.

— *The Ancient Geography of Kashmir*, Calcutta, 1898.

— *Rajatarangini* (ed. tr. and notes), Vol. I and II, Motilal Banarsi Das, Delhi (Reprint), 1979.

Stern, Philip Van Doran ; *Prehistoric Europe*, Great Britain, 1970.

Tarn, W.W.; *Greeks in Bactria and India*, Cambridge, 1951.

Taylor, Edward.; Burnett, *Religion in Primitive Culture*, Newyork, 1958.

- Tewari, B.S.; and Kachroo, R.K.; On the Occurrence of *Equus Sivalensis* from Karewas of Shupian, *Rec. Res. Geol.*, Vol. 3, 1977.
- Thapar, B.K.; Neolithic Problems in India, *Indian Prehistory*, (ed.) Misra, V.N., Mate, M.S., Poona, 1964.
- Central Asia and India, *Central Asia*, ICCR, New Delhi, 1970.
- Thapar, Romila; *A History of India*, Vol. I, Penguin Books, England, 1972.
- *Ancient Indian Social History, Some Interpretations* New Delhi, (Reprint), 1990.
- Thomos, G.; *Studies in Ancient Greek History*, London, 1949.
- Thompson, Th.; *Western Himalayas and Tibet*, London, 1952.
- Trattiriya Samhita*; Anandasrama Series, Poona, 1901.
- Tripathi, C.; and Chandra, P.R.; Detailed examination of the Karewas of Kashmir for the Remains of Early Man, *GSF Report* (un-published), 1962.
- Trivedi, R.D.; A Group of Matrkas from Kashmir and some related problems, *Journal of the Oriental Institute*, Vol. 31, Baroda, 1981.
- Ucko, Peter, J.; *Man, Settlement and Urbanism*, Gloucester, 1972.
- Utgikar, N.B.; *Vaishnavism, Shaivism and Minor Religious Systems*, Vol. IV, Sake, 1929.
- Vayu Purana*, Anandasrama Series, Poona, 1905.
- Vogel, J. Ph.; *Indian Serpent Lore*, Varanasi (Reprint), 1972.
- Wadia, D.N., Pleistocene Ice Age deposits in Kashmir, *Proc. Nat. Ist. Sci. India*, Vol. 7 (1), 1941.
- The transitional passage of Pliocene into the Pleistocene in the North West India, *Proc. Int. Geol. Cong.*, 18th Session, London (1948), Vol. II (K), 1951.

- *The Geology of India*, Macmillan and Company, London, 1961.
- Watters, Thomos., *On Yuan Chwang's Travels in India*, (ed.) T.W. Rhys Davids, and S.W. Bushell, Vol. XIV, London, 1904.
- Wheeler, Mortimer, Brahmagiri and Chandravalli (1947), *Megalithic and other Cultures in Mysore State*, ASI, *Ancient India*, 1947-48.
- *Early India and Pakistan*, Thames Hudson, London, 1959.
- Wolf, Josef.; *The Dawn of Man (Text)* edited and adopted by Peter Andrews, Robin Harva, and others, Great Britain, 1978.
- Zadoo, J.D.; *Prasadamabdnam* (ed.) KSTS series, No. LXXII.

Captions for Figures and Plates

No.s. : 1 to 49

1. Glaciers and deposition of moraines.
2. Kashmir Valley floor under primaeval lake flanked by steep ranges of Pir Panjal and the Himalayas.
3. End of lacustrine deposits on the Pir Panjal side due to its uplifting and shifting of the lake towards the northern (Himalayan) side.
4. Final drainage of the Primagval lake and emergence of river Jhelum around 85 Kyr.
5. Karewa vertebrates investigated in the Kashmir palaeoclimatic project.
- A. Sites yielding diversity of mega and micro-mammalian fauna fossils.
- B. Some types of fossil remains from the Karewas.
6. Sampled sites for pollen analysis

1. Srinagar 2. Hokarsar. 3. Anchar 4. Burzahom
5. Butapathri 6. Gulmarg 7. Sukhnag 8. Raithan
9. Romushi 10. Hirpur 11. Dubjan 12. Saki Paparian
13. Olchibagh 14. Pahalgam 15. Chandanwari.

7. Pollen studies from Hirpur-III south-west of Srinagar indicating vegetation pattern requiring warm temperate and wet climate.

8. Some pollen types from Hirpur Locality III.

Pollen profile from Buthapathri meadow, near Gulmarg.

Percentages calculated in terms of Total Land Plants pollen.

9. A comparative correlation of stratigraphy of some representative loess sections of Khanchkol (KK), Dilpur (Dil), Woyl (W) and Pheru (PE). The hatched bands represent paleosols. These numbers reflect subtle climatic changes. The numerals with arrows show Thermoluminescence (TL) dates.

10. Sequence of exposed Karewa, Palaeosol ; loess and archaeological deposits from the Neolithic Settlement of Burzahom, Srinagar.

11. A. Burzahom Section (Schematic) : Member I indicated by laminated muds, cross beaded sands and marls represents lacustrine and fluvial conditions. Member 2 represents swampy conditions after drainage of lake. Member 3 is the loessic deposit intercalculated with three Palaeosols (marked 1,2,3). Member 4 represents archaeological deposit.

B. Another section with Radiocarbon dates.

Reconstruction of Palaeolithic Settlement (20,000 B.P.)

12. Tools from Palaeolithic Settlements

A. Balapura, Shopian.... Huge Chopper like a discoidal core.

B. Kulladour, Tapribala, Pattan.... Backed knives and elongated parallel-sided double scappers.

13. A. Lithic industry form a Upper Palaeolithic site, Sombur Pulwama.

Sombur Industry.. Burins, Points and borers.

B. Survival of Palaeolithic settlement.... A Gujjar Kotha.

A. Hutment with wooden beams and poles at Naran Nag, Wangat.

14. Neolithic Settlement Burzahom Excavations.

A Representative section of the Dwelling pit. Red Ochre floor at the bottom of the pit is indicated (X). On the top on the right side is the hearth for use in sunny days.

15. Neolithic Settlement Burzahom Excavations.

Pit Chambers, with side drains, post-holes, hearths and sealing deposits.

16. Neolithic Settlement ... Subsistence Pattern of the people. Hunters, a potter at work and a house-holder grinding corn.

A. Two hunters killing a Barasingha with two symbols of Sun and the hunting dog at the top register.

B. A potter manufacturing the pot by coiling method.

C. A man grinding the corn.

17. Neolithic Settlement A skeleton from Burzahom Excavations.

A primary burial of an adult excavated at a depth of 10. 4 in south-east and north-west direction resting

on its left side. Five carnelian barrel beads were found below its neck.

18. Neolithic Settlement A Skeleton from Burzahom excavations.

A type of secondary burial with bones treated with red ochre. The skull is trepanned.

19. Neolithic Settlement A fractional burial

Fractional burial with skulls, limb and rib bones, fragmentary bones of wild dogs, antlers and other pet animals.

20. Some specimens of Stone *tools* from the Neolithic Settlement of Burzahom.

21. A few varieties of bone tools from Neolithic settlement at Burzahom.

22. Neolithic Settlement from Burzahom Excavations Items of personal decoration.

23. Some prominent tools and their functional value.

24. Pottery shapes-Burzahom Excavations.

A. Burnished Grey ware shapes.

B. Fine Grey Ware. with red brush groovings applique designs

25. Neolithic Settlement from Gufkral Excavations, pulwama.

A. Cultural Sequence. Dwelling Pit and the later deposits sealing it.

B. Bone tools. C. Stone tools.

26. Some Foreign Intrusion in Burzahom and Gufkral Settlements.

27. Stone structure from Megalithic settlement at Burzahom.

28. Ceramic Evidence from Megalithic Settlement of Burzahom, Srinagar. Gritty Red Ware Vases (Kashmiri Matha).

29. Early Historical and Historical Settlements from Semthan, (Bijbehara) and Huthmura (Anantnag) Excavations.

A. Terracotta images clad in Indo-Greek attire, Semthan Excavations.

B. Terracotta Tile Pavement with varieties of motifs from Huthmura Excavations.

30. Early Historical and Historical Settlements—Gragco-Buddhist earliest specimens of terracotta sculptural heads from ancient Huvishkapura (Ushkur), Baramulla, the Capital city of emperor Havishka.

31. Early Historical and Historical Settlements.

A. Hoi Nar, Pahalgam. A Hunting Scene on a tile.

B. An exposed part of Diaper-pebble structure at Harwan.

32. Early Historical and Historical settlement from Harwan, Srinagar Excavations.

A. Tile - Pavement of the Buddhist temple and series of emaciated monks at the back.

B. Aristocratic living style of the section of the residents. The couple at the balcony in a pleasing conversation.

33. Plan of circular Apsidal temple 9(back) with a spacious rectangular antechamber in the front from Buddhist settlement.

34. Early Historical and Historical Settlement from Harwan Srinagar Excavations.

A. Working style of the lowest section of the residents. Water carrier and the carrier of incense burner or flower vase. Kharoshthi numerals at the top.

B. A dancer in motion.

C. A horseman in armour riding at full speed with his bow drawn out to shoot. The quiver hangs on the saddle. Kharoshthi numerals at the bottom.

35. Some of the coins of ancient Kashmir Early Historical Historical and Mediaeval settlements.

36. The earliest type of Brahmanical temples in Mediaeval Kashmir.

A. Shankaracharya Shiva Temple, Srinagar, standing on high octagonal plinth, it has a long flight of steps with a low parapet wall around it containing 84 round-headed recesses enclosed in rectangular panels. It is internally circular and externally square with two projection on each side. Absence of trefoil arch portrays the beginning of temple art in the valley.

B. Tapar, Baramula Shrine of Vishnu temple, the first attempt to provide the shrines with peristyle. An isolated base of the column is distinct.

37. Mediaeval Settlements Early sculptures.

A. Pandrethan A buskined figure (lower part). The long boots, the flower—garland and the lion-seat depicted in this illustration brackets it as the only one of the type in Kashmir datable to 1500-1600 B.P. early Kushana period.

B. Pandrethan Birth of Siddhartha. The queen-mother is supported by her sister on the left and by her right hand she holds the branch of the Ashoka's tree at the Lumbini garden and thus gives expression of excessive labour-pain.

38. Mediaeval Settlement Early Stone Sculptures-1500-1600 B.P.

A. Karttikeya from Bijibehara. Its deep-folded garments. Jewelled wreath, hair-style, long ear-lobes, treatment of streamers are characteristic features of Gandhara, Bactria and Sasano-Iranian regions.

B. Bijibehara—Early image of Vishnusingle headed and without dagger which accompanied three-headed Vishnu images of later periods.

39. Medieval settlement..... A female divinity of Matrika-group of images.

Pandrethan A standing figure of Maheshvari.

40. Mediaeval Settlements..... A Buddhist evidence.

Terracotta plaque of Stupa from the monastery of Amritabhavana (modern Antabawan) near Vicharnag, Srinagar. The votive stupa measures 15.5 x 4.5 x 6.5 cms and carries late Gupta inscription of 5th-6th Century A.D. (National Mueum Collection.)

41. Plans of some of the religious buildings of Mediaeval settlements (1200 B.P.) during King Lalitaditya's reign.

A. Chaitya, Parihasapura, Baramulla.

B. Martanda Temple, Anantnag.

C. A Stupa, Parihasapura.

42. Metal Sculptures from Mediaeval settlements (c.1200 B.P.)

A. A graceful, subtle, elegant image of Surya, a replica of the principal image that once enshrined Martanda temple—a finished architectural sepcimen of the valley.

B. A standing Buddha figure depicting Bactro-Gandhara heritage.

A and B. Cleve land Museum of Art. Cleve land.

43. Mediaeval Settlement A distinctive style of Kashmiri temple architecture and the sculptural projection.

A. Martanda temple General view.

B. Surya riding on a horse accompanied by his companions, Dandi and Pingala, wears long boots, a coat of mail, heavy ear-ornaments and crown with three projections.

44. Mediaeval Settlement Superb Temple architecture.

Avantipura-Avantisvami temple plan.

45. Mediaeval Settlement Elegant form of temple (Avantisvami) architecture and exuberant carvings.

Avantipura—A part of temple architecture with the carving of the figure of Kamadeva (god of love) in one of the projected panel seated between two queens Rati and Priti. A long Staff with flower at the base is held by the god by one of his hands.

46. Mediaeval Settlement A graceful Vishnu image.

Avantipura—A Caturanans Vishnu Image, front view (1100 B.P.).

47. Mediaeval Settlement A notable architectural specimen of later period of temple complex.

A. Pandretan..... Siva Temple—A Well-preserved example of roofing style of the temples and other buildings in 1000 B.P. A figure of Lakulisa is carved in the trefoil niche of the entrance.

B. Exquisitely carved ceiling of the temple made of nine stones arranged in three overlapping squares with empty panels shown with flying figures holding garlands, and the full blown lotus with twelve full

petals on the top most square slab. A best example of the carving on stone.

48. Mediaeval Settlement A highly accomplished architectural specimen of a temple (1600 B.P.).

Payar (Pulwama) Shiva temple with its sanctum open on all sides. Devoid of any cellular peristyle, figurative motifs have been carved with profound skill on various components of the temple itself—built of 10 stones only. Recessed niches surmounted by pedimented trefoils on the entrance lintels carry different representations of Shiva. The other figures are geese with long foliage dails, bulls, musicians etc. It is the architectural gem of the period.

49. Mediaeval Settlement.... The coinage and a datable bronze image—mid 1000 B.P.

A. Diddakshemagupta—Didda as queen of king Kshemagupta (950-950 A.D.).

B. Bodhisattva Padmapani seated on double lotus supported on a beautifully carved pedestal accompanied by two female companions. Tara and Brikuti who too are seated on lotus thrones. The inscription at the base mentions its consecration in the reign of Queen Didda (980-1003 A.D.).

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G.M. C.E.J. Education
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Born in Srinagar, Kashmir in 1922, S.L. Shali after his retirement as Deputy Superintending Archaeologist, A.S.I., and in recognition of services in archaeology, he was appointed as Research Associate in the Centre for Central Asian Studies, Kashmir University. As an officer of A.S.I., as Research Associate, Kashmir University, as a team Member of Kashmir Palaeo-climatic Project, Govt. of India and as Sr. Fellow of ICHR, he participated in multi purposeful field endeavours and production of write-ups. He was directly involved with the excavations carried out at various sites in the valley and in fact many new sites were spotted by him. He had thus been fully familiar with the latest archaeological pursuits and investigative measures which throw new light on the history and archaeology of Kashmir.

He had attended various national symposiums, seminars, conferences and contributed scores of research papers including one which was published, in 1984, in the German Magazine "*Das Alterium*".

At the time of his demise, he was compiling the material for the publication of "*Archaeological Research in Jammu*".

ISBN 81-86867-52-X

Rs 500



OM PUBLICATIONS

2783, (1st Floor) Bhagat Singh Gali No. 6,
Chuna Mandi, Pahar Ganj, New Delhi-110055 (India)
3535574

e-mail ibp@ndf.vsnl.net.in

ISBN 81-86867-52-X



9 788186 867525